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APPLE UNLEASHES A
MOUNTAIN LION

SONY KEEPS THE
WALKMAN ALIVE

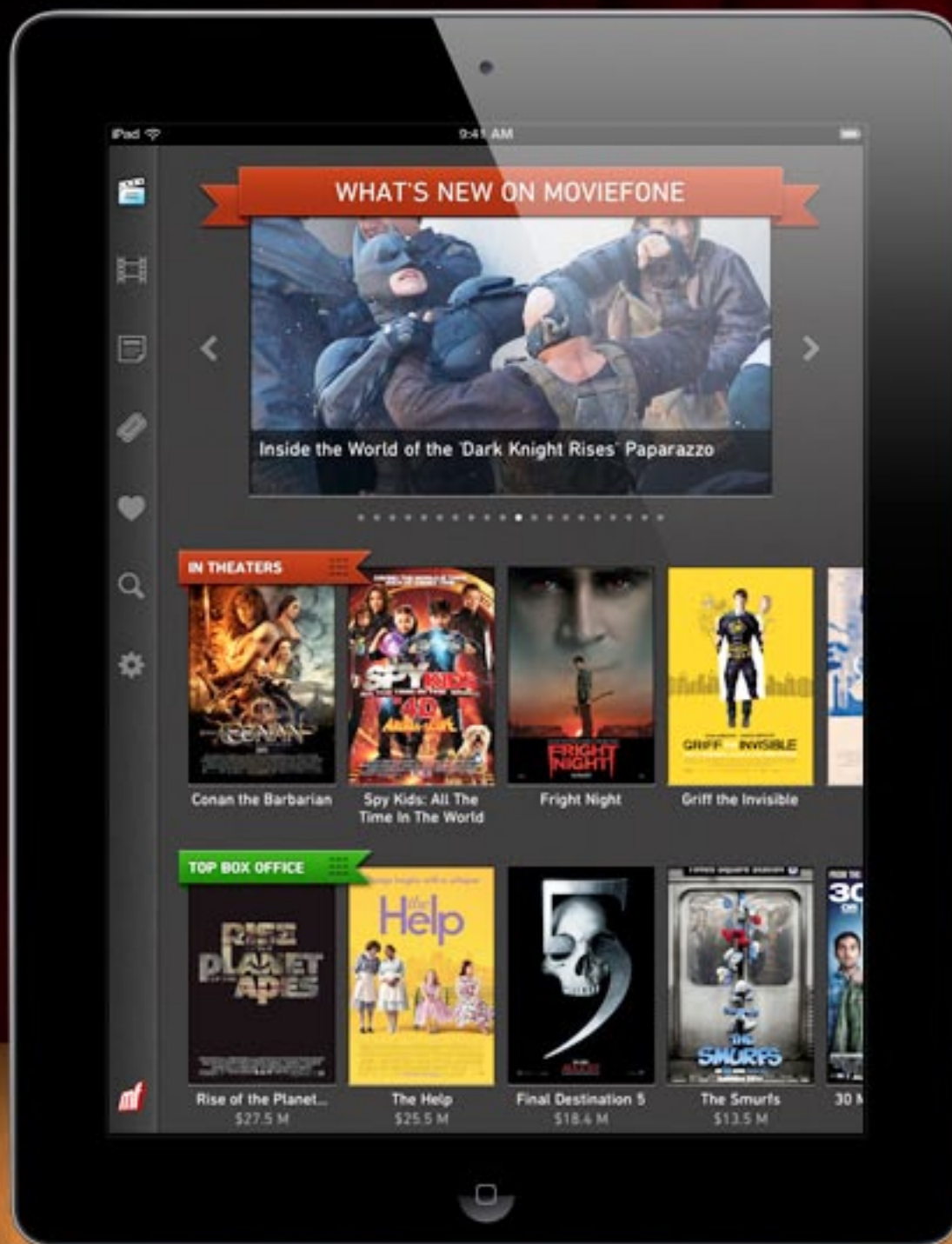
CONSIDERING PANTECH'S
WATERPROOF TABLET

A BUDGET-FRIENDLY
LTE RINGER

PLUS FATHER
OF NERDCORE,
MC FRONTALOT

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iPad Looks Set to Hit 3 While PlayBook Turns 2.0

Editor's Letter

Another week and another set of iPad 3 rumors. Are you excited yet? After what happened at the iPhone 4S launch, I'm going to temper my enthusiasm, but what we've seen this week is solid enough to make us pretty sure *something* new is coming. First up was an image of a new processor, labeled "A5X." The current iPad 2 of course runs the A5 processor and presumably this extra designation implies something of an evolution on that front. More cores? More cycles? More letters? Hopefully we'll find out soon, what with the rumored March 7th launch looming closer.

The other bit we saw this week was a close-up of a supposed iPad 3 display. *MacRumors* managed to acquire a panel that still hits the same 9.7-inch size as the previous model, implying that there won't be any major design changes, but featuring a 2048 x 1536 resolution. That's an odd figure, slightly higher than 1080p and not jiving with any standard pixel counts, but it is nearly four times the pixels of the current 1024 x 768 panel.

That current iPad was



involved in some legal drama in China this week, with Shenzhen-based Proview Technology claiming it owns the trademark for the word "iPad." As it turns out the company does indeed appear to own that

trademark in several countries (including China and Taiwan), but as we go to press Apple is said to have shown that it properly licensed the worldwide rights to use the name from the Taiwan wing of Proview. It's unclear whether the Taiwanese branch acted improperly or if the Chinese outfit was simply left out of the loop, but for now Apple looks to be coming out on top — as ever.

RIM, on the other hand, is in a somewhat lower place. The company released the long-awaited 2.0 update for the PlayBook, an update that users have been itching for since the thing shipped almost a year ago. The big addition here is the Messages app, which finally brings native email to the thing, but the inclusion of support for Android apps is also notable — if somewhat underwhelming at this point. The selection of available apps is frustratingly limited. That

“For now Apple looks to be coming out on top — as ever.”

will grow, of course, but at this point we have to figure most PlayBook owners are well and truly out of patience.

Barnes & Noble updated its suite of Nook tablets, launching a \$199 8GB Nook Tablet and cutting the Color to \$169 — a price that seems to indicate the thing is on the way out. The company finally has offered to repartition devices, getting rid of the ridiculous 1GB cap on any content that was manually loaded by the user. There’s a problem, though: to do this you have to actually bring your tablet to a physical Barnes & Noble brick and mortar store to have an assistant perform the update for you. Those are, sadly, getting a little hard to come by these days.

The PlayStation Vita has officially launched and was quickly augmented with a couple of high-profile apps: Netflix and Facebook. They join a quality selection of launch titles and, if SCEA Senior VP Guy Longworth is any indication, Hulu should be coming soon. He indicated that Sony has a partnership with the streaming service, though it’s anybody’s

guess when, or indeed if, that partnership will bear fruit.

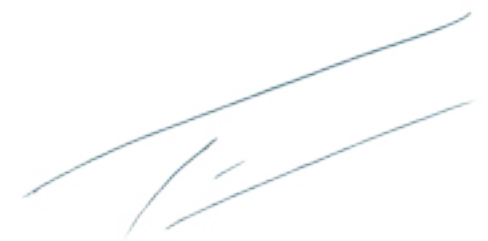
Google looks like it wants to start serving up its own video content, but in a very different way. The company is already running fiber so that the residents of Kansas City can get gigabit internet access in their homes, and now it’s asking the state of Missouri for permission to serve video as well. Could Big G next morph itself into a threat to the cable companies? Wouldn’t that be nice?

Verizon suffered yet another LTE outage this week, knocking NYC offline as well as many other parts of the nation. It was back up about two hours later but we’ve lost count of the number of glitches like this we’ve seen over the past 12 months.

Finally, there was a lot of noise this week about Tesla Roadsters “bricking” when left unplugged for too long. Apparently, after a period of many weeks, the car’s systems will drain the battery to such a degree that it will need to be replaced — at a healthy cost of \$40,000. Tesla responded and effectively confirmed this *can* happen, but there are a num-

ber of integrated countermeasures including blinking lights, alarms and even having the car phone home so that a Tesla representative rings the owner. That’s a service your average Toyota does not include.

This week’s big feature is our preview of Apple’s next release of OS X, 10.8. Dubbed Mountain Lion, this release is more iOS-like than ever before and should be another solid update for Mac lovers. But don’t take my word for it, Brian’s impressions await, along with our reviews of the Pantech Element, the Pantech Burst and the Sony Walkman Z. If that’s not enough, we have some further Recommended Reading, another IRL and a little Q&A session with the father of Nerdcore, MC Frontalot. Things could get funky, so make sure you get extra chill before digging in. 



TIM STEVENS
EDITOR-IN-CHIEF,
ENGADGET

Apples to Androids: Gartner Releases Latest Mobile Numbers

According to Gartner's latest bundle of smartphone stats, Apple finished 2011 as the world's top smartphone vendor by market share (19 percent), thanks to a Q4 that saw the company grab 23.8 percent of the market. During the quarter, Apple sold some 35.5 million handsets to end users, marking a mildly insane 121.4 percent increase from Q4 2010. When it came to overall mobile sales and OS market share, however, Cupertino still had some catching up to do. Apple overtook LG to become the world's third largest seller of all mobile phones, with a 7.4 percent market share last quarter, trailing only Nokia (23.4 percent) and Samsung (19.4 percent). Nokia, in fact, saw some of its lead wither away during Q4, with sales dropping 8.7 percent over the year, to 111.7 million units. On the OS front, meanwhile, Android continues to dominate Q4 with 50.9 percent of the smartphone market, but that's slightly down from the previous quarter, when it grabbed a little less than 53 percent. Gartner attributes some of this to increased sales of the iPhone 4S, though it expects iOS' share to decline over the next "couple of quarters," as fewer users upgrade to the company's latest handset.

— Amar Toor

TOTAL 4TH QUARTER WORLDWIDE MOBILE DEVICE SALES

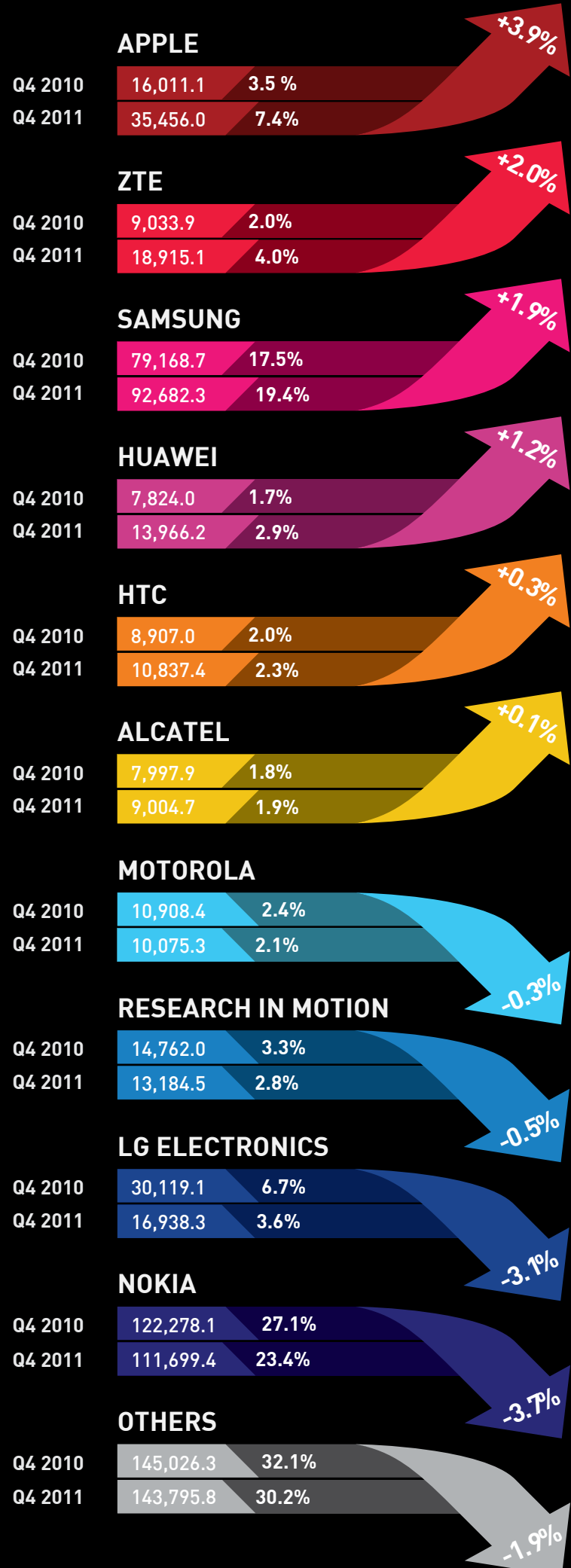
(Thousands of Units)

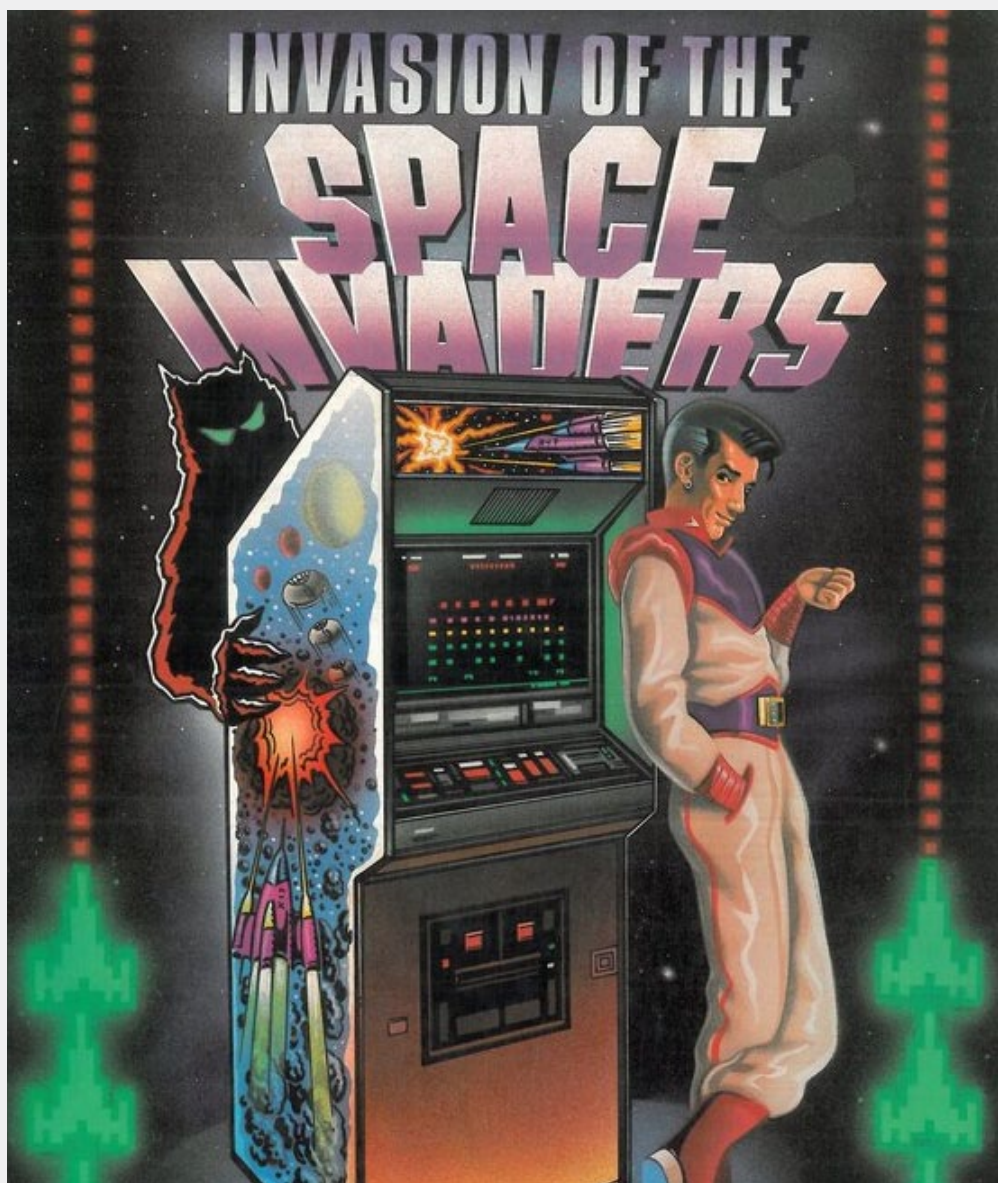
2010 **452,036.5**
2011 **476,554.9**

The Weekly Stat

OVERALL WORLDWIDE MOBILE DEVICE SALES

(All Figures in Thousands of Units)





The Arcades Project: Martin Amis' Guide to Classic Video Games



by Mark O'Connell
The Millions

Novelist Martin Amis stopped work on *Money*, his masterpiece, to write a paperback manual on beating *Space Invaders* and other arcade games. Later fame led Amis to disown and withdraw the book, but Mark O'Connell managed to find a copy, publishing extraordinary extracts on how to win at *Pac-Man* in his own brutal and unique prose.

— Daniel Cooper

AROUND THE WEB

The Boy Who Played With Fusion
by Tom Clynes

Popular Science



Tom Clynes offers an incredible portrait of Taylor Wilson, who at fourteen years old became the youngest person ever to have achieved nuclear fusion.

Q&A: Hacker Historian George Dyson Sits Down With *Wired's* Kevin Kelly

by Kevin Kelly

Wired



Founding *Wired* editor Kevin Kelly talks to George Dyson about the origins of computing, the key figures like Alan Turing and John von Neumann, and why technology companies should be hiring biologists.

Against TED

by Nathan Jurgenson

The New Inquiry



The TED conferences (for Technology, Entertainment and Design) have become a runaway success, but they've also attracted a good deal of criticism. Here, Nathan Jurgenson neatly boils much of that down, arguing that it has become "increasingly out of touch and exclusionary."

Why LightSquared Failed: It Was Science, Not Politics

by Jon Brodtkin

Ars Technica



LightSquared has become one of the more infamous technology companies in recent years, promising the lofty goal of a new type of LTE network that would help solve the United States' spectrum crunch. Problem is, as Jon Brodtkin explains, it was doomed from the start.

Recommended Reading



REVIEW

Pantech Burst

If you're looking for LTE on the cheap, the Burst gives you some good bang for your buck.

BY BRAD MOLEN

Consider the high-end smartphone. While you lust after those, Pantech is on the prowl, steadily adding to and improving upon its army of budget offerings in the US. It may not be as formidable a force as the Samsungs and Motorolas of the world, but the outfit is finally beginning to leave a mark. Once a complete

unknown outside of Asia, the phone manufacturer is keeping itself incredibly busy on this side of the Pacific, cranking out low-cost devices for AT&T and Verizon. Now, Pantech's focus has turned to LTE, starting with the \$50 Breakout on Big Red, followed by a smartphone and tablet option on Ma Bell.



The Pantech Burst is the inaugural entry-level LTE smartphone in AT&T's lineup, debuting at \$50 with a two-year commitment. Don't let that bargain-basement price turn you off, though — this thing's got plenty of mojo to back it up, which makes the Burst a stark contrast to its Verizon counterpart. But what can we expect from a budget-friendly handset? Is Pantech finally pushing out a device that will help it earn a new level of respect from American consumers? We're bursting at the seams to answer those questions and take the device for a spin in the paragraphs ahead. (Yes, we just went there.)

Hardware

Judging from the outside, there's absolutely nothing that would make the Burst stand out above the crowd. In

fact, you could argue this handset is the most "normal-looking" Android smartphone Pantech's put out in the US — one only has to take a quick glance at the Crossover and Pocket to validate this theory. The short version: it's a slab with a 4-inch display, a typical plastic build and all of the standard ports. Fortunately the phone attempts to break the monotony by adding a few tiny design tweaks and offering black and red color options. But as we'll find out soon enough, beauty isn't just skin deep; it lies beneath, within all of the circuitry, boards and other gizmos hidden under the exterior.

To specify, let's rattle off a few specs you can expect from the Burst: a 1.5GHz dual-core Snapdragon S3 CPU, a full gig of RAM, Adreno 220 GPU, 4-inch Super AMOLED display, 16GB internal stor-



age (expandable up to 48GB), five megapixel rear shooter with 720p HD capture and a VGA front-facing camera for video chat. It also adds quadband (850 / 900 / 1800 / 1900) GSM / EDGE, triband (850 / 1900 / 2100) WCDMA / 21Mbps HSPA+ and dualband (700 / 1700) LTE. With only a couple exceptions, this is a highly respectable list of specs we imagine would entice a large number of people. Push all of that into a low-end phone, and you have our attention.

Adorned with your run-of-the-mill plastic without any texture or soft touch material to call its own, we found the

Burst to lean toward the slippery end of things, but the smartphone's smaller frame appears to make it easier and more comfortable to hold. It measures 4.98 x 2.46 x 0.45 inches (126 x 62 x 11mm), which puts it in the middle of the pack, thickness-wise. In this case, Pantech designed the phone carefully enough so that it could pull off a sleek profile, regardless of any relative heft. It also benefits from being incredibly light, weighing just 4.32 ounces (122g). While we would have preferred soft-touch plastic to add a smidgen of extra tactility, it was still a pleasure to hold otherwise.

If you're looking for a smartphone with the latest and greatest HD display, look elsewhere — would you expect any different from a budget device? The Burst is equipped with a 4-inch Super AMOLED display that boasts a WVGA resolution of 800 x 480. This may sound incredibly underwhelming by today's standards — assuming you're comparing this to \$300 phones — but the pixel density of the device is 233ppi, which is perfectly reasonable. Let's put it another way: this is the same panel featured on the Samsung Nexus S, but without the curved glass. As a warning to those offended by the very existence of PenTile, the Burst is all 'bout the RGBG layout, with some obvious pixelation should you stare at the screen hard enough. This shouldn't come as much of a surprise, though, when you remember the price. And while we would love to have a better screen, it's good enough

for us to not have any outspoken concerns with it. The colors are well saturated, the viewing angles are tremendous and the screen is bright when used indoors; unfortunately, we struggled to make out the display in direct sunlight.

Flanking the display on its top and bottom are the VGA camera and capacitive navigation buttons, respectively. The keys are configured in the standard formation, with menu, home, back and search from left to right. Turning the phone to the right will earn you an up-close-and-personal look at the micro-USB charging port. The tippity top of the Burst houses the 3.5mm headphone jack and power button, while the volume rocker sets up residence on the left side of the device. The chrome top and plastic bottom (black or red, depending on your color choice) merge together in a curious arrangement, with the chrome bit reaching up on each end and the plastic piece extending down from the display in the middle. We can't say it's the prettiest phone we've ever seen, but we at least appreciate Pantech's commitment to taking design risks in the name of getting noticed.

As an aside, another curious design choice is the plateau on the rosewood-themed battery cover, featuring ridges on the left / right and a gentle slope on the top / bottom. Speaking of which, the battery cover is where you'll find the standard five megapixel rear camera and its accompanying LED flash on the left — a first for Pantech in the US — and speaker grille on the right. Lift-

ing up the back reveals a 1,650mAh battery, noise suppression mic and slots for a microSD and microSIM card. The microSD slot is empty when you purchase the phone, but there's a very good chance you won't notice it right away — the Burst is blessed with 16GB of internal storage. If you do need more, you'll be able to stick in a card up to 32GB, which would push the phone's capacity to a grand total of 48GB.

It's a breath of fresh air to see an inexpensive handset that offers performance power users can be satisfied with.

Performance and Battery Life

When the Burst was officially announced at the AT&T Developer Summit last month, we were already taken aback by the idea that a low-end LTE phone could boast a 1.2GHz dual-core processor — in comparison, the similarly priced Breakout on Verizon features a 1GHz single-core chip — but during the course of our review, we've learned that the spec is incorrect. Rather, the Burst is powered by a 1.5GHz dual-core Qualcomm S3 CPU with 1GB of RAM thrown in. Something this significant merited

BENCHMARK	PANTECH BURST	SAMSUNG SKYROCKET	LG NITRO HD
Quadrant ¹	3,415	3,334	2,616
Linpack (single-thread) ¹	50.1	50.6	51.1
Linpack (multi-thread) ¹	80.55	77.4	81.8
NenaMark1 ¹	56.1	59.8	56.1
NenaMark2 ¹	53	54.1	37.2
Neocore ¹	56.2	57.7	59.8
SunSpider 0.9.1 ²	2,658	3,115	2,687
Vellamo ¹	1,151	815	1,156
Battery life (LTE) ¹	7.5 hours	N/A	4.5 hours

¹Higher is better

²Lower is better

some extra investigation, and not only have we verified this using multiple apps that list components and track CPU use, we've also received official confirmation from Pantech that it is, in fact, clocked at that higher speed. AT&T's website, however, remains steadfast in listing the incorrect spec, which painfully adds to the confusion. We say: if you got it, flaunt it. This is easily the most impressive spec any \$50 phone has ever had to offer, and it's being downplayed as if it's not important.

Stepping off our soapbox, this powerful CPU lives up to our expectations in both real-life performance and benchmarks. The Burst handled our multitasking and gaming with ease, not giving pause or allowing any hiccups in the process. And the benchmarks certainly seem to back up our own experience: its Quadrant (version 1) score edges out the Samsung Skyrocket and trumps the LG

Nitro and bests both in SunSpider 0.9.1. The other two devices came out on top in the other benchmark results, but the Burst didn't trail far behind in any of them. We were completely stunned to see a Pantech phone compete with such bigshots. It's a breath of fresh air to see an inexpensive handset that offers a level of performance that power users can be satisfied with.

Disclaimer: during the course of our review, Quadrant Standard was updated to version 2. The refresh adds ICS compatibility and will more accurately factor in additional cores, as well as making adjustments to the frame rate and other bug fixes. Because of this, the way scores are tabulated will be different as well. While our benchmark results in this review reflect the first version of the app, we have also run Quadrant v2.0, generating a score of 3,189. We haven't had the opportunity to update and test



most of our old devices to offer a truly proper comparison, but we tested the TI OMAP-powered Motorola Droid RAZR Maxx and got a score of 2,273.

We won't dispute that the Burst doesn't suffer in the speed department, given its LTE connectivity. We can, however, disagree on it being the fastest on said high-speed network. We took the LTE-capable Pantech Element and ran speed tests side by side to ensure there would be as few external factors getting in the way of our assessment. In the same location, at identical times and with equal bars of service, the Element outpaced the Burst in download speeds by a prodigious margin. While the tablet consistently hit speeds between 30 and 45 Mbps down, the handset averaged in the 20s with occasional bursts (sorry) in the 30s and 40s.

You'll need to beg our pardon, because ever since we reviewed the Motorola Droid RAZR Maxx, our view on how long

a smartphone battery is supposed to last has become irreversibly upended. After witnessing its 16.5-hour rundown time, we've seen the light and can't go back to the way things were before. There's no reason more handsets, even those that take advantage of LTE, shouldn't follow suit. Indeed, it's difficult to argue against the fact that the Maxx succeeded in raising the bar and rethinking possible. Oops, wrong carrier.

Using our standard video rundown test, the Burst lasted for seven hours and 30 minutes when connected to LTE. This device's 1,650mAh juicepack got us through a full day with moderate usage, but heavy content consumers will need to have a car charger handy.

We never experienced a dropped call during our tests, and we could hear the other end of the line easily enough, but the internal speaker falls on the quieter end of the spectrum. Happily, we didn't receive any complaints, likely

due to Audience's dual-microphone noise suppression technology. The external speaker also teetered on the edge of mediocrity, with voices sounding slightly tinny on the other end. We had an enjoyable experience listening to music on our Skullcandy headphones, thanks at least in part to Pantech's equalizer, which offers plenty of profiles and even gives us the option to customize EQ levels to our own personal preference.

The touchscreen was perfectly responsive in the sense that we didn't experience any lag or significant delays, but we noticed it occasionally stumbled when we required extreme precision. On multiple occasions, when we attempted to press a smaller button — say, a tiny browser link or progress bar in the music player — the screen would register touch a couple millimeters off. We usually moved the tip of our finger around a bit and found success on the second try, but it happened enough times to be a concern. Unfortunately, we had a similar spat with the capacitive navigation keys below the display as they would often require a second or third press before our touch registered.

Camera

We'll just put this out there: Pantech isn't known for placing stellar cameras in its US models. Rather, its shooters seem to be inserted into each phone as more of an afterthought, completely lacking the TLC we've come to expect from vendors like Samsung and HTC.

We can't really be surprised by this, though, because the outfit appears to know its place in the US smartphone food chain. That is, Pantech understands that its primary demographic isn't a power user or mobile photography connoisseur. After all, it's trying to serve up inexpensive handsets — its last three smartphones started at \$50 on contract — and more often than not, the camera tends to be one of the first casualties of corner-cutting.

Pantech isn't known for stellar cameras, and the Burst doesn't do anything to change that.

Setting this expectation, we now turn to the camera experience on the Burst. Pantech sticks with its standard 5-megapixel rear sensor, not unlike what you'll find on the Breakout and Pocket, but adds a poor LED flash this time around. While the sensor still lacks attention to detail, we noticed that it at least seemed to gauge white balance accurately. We wish we could say the same about its low-light performance, though, because it's utterly miserable. There are zero options for enhancing the precious little



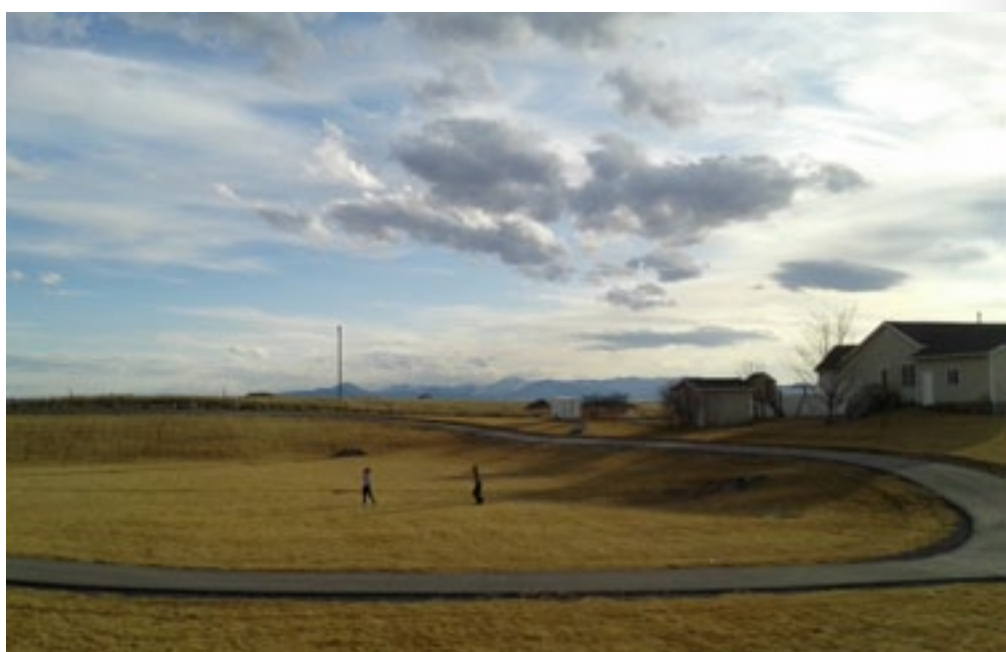
SAMPLE
IMAGES

light we could conjure up, and the moon would do better at capturing images in the dark than the Burst's flash. Pictures of objects a mere three to four feet away from us are barely visible, much less exhibiting any semblance of color.

The camera app is much quicker to load on the Burst compared to the Pocket, only taking one or two seconds, but the 4 to 5-second shutter lag is plenty slow enough to miss crucial memories that can come and go in a split second. We've found the only method to get faster snaps is to hold the shutter button down to lock the focus, and let go whenever you're ready. Doing so shaves a full second off the shutter lag, but it's not ideal for most situations.

The user interface hasn't changed at all since we reviewed the Pocket, which means it's still just as bland as ever. There's nothing wrong with the camera app having a basic UI, per se, since we'd prefer to keep the viewfinder as clean and minimal as possible, but Pantech seems to take the same attitude with its overall list of features and functionality. You can tweak exposure, zoom, color filter, focus mode and white balance (with a limited selection of choices), but you're not getting any fine-tuning options like ISO, contrast, panorama mode, metering, anti-shake, smile detection and so on.

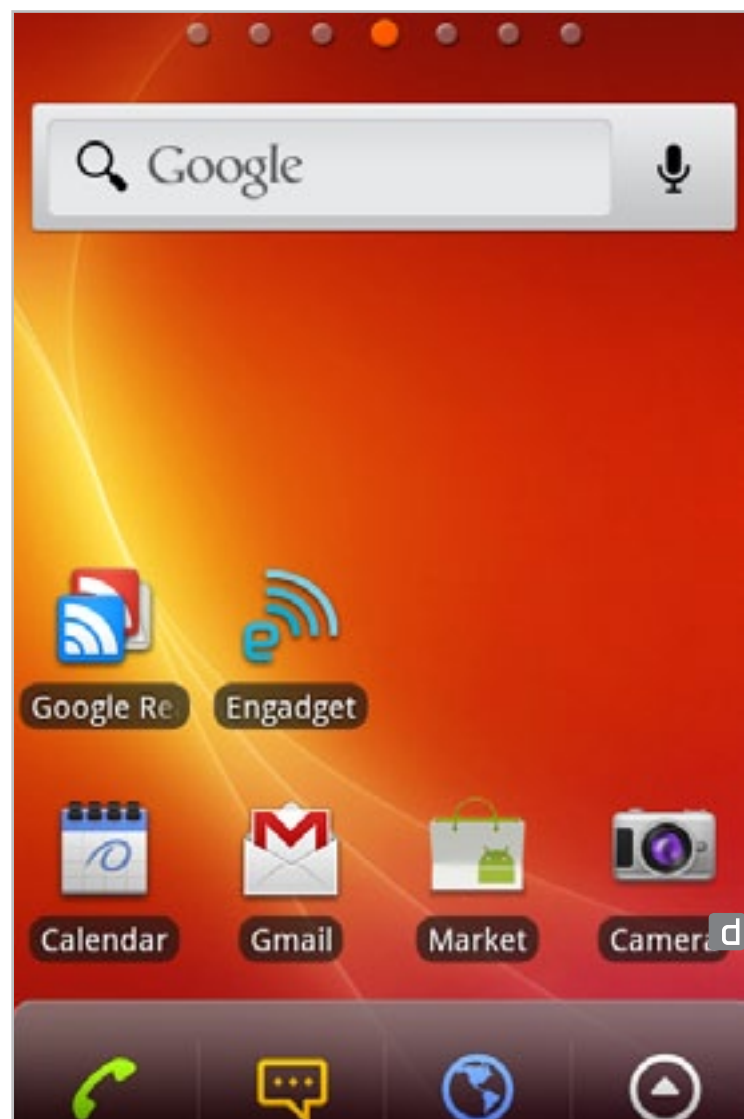
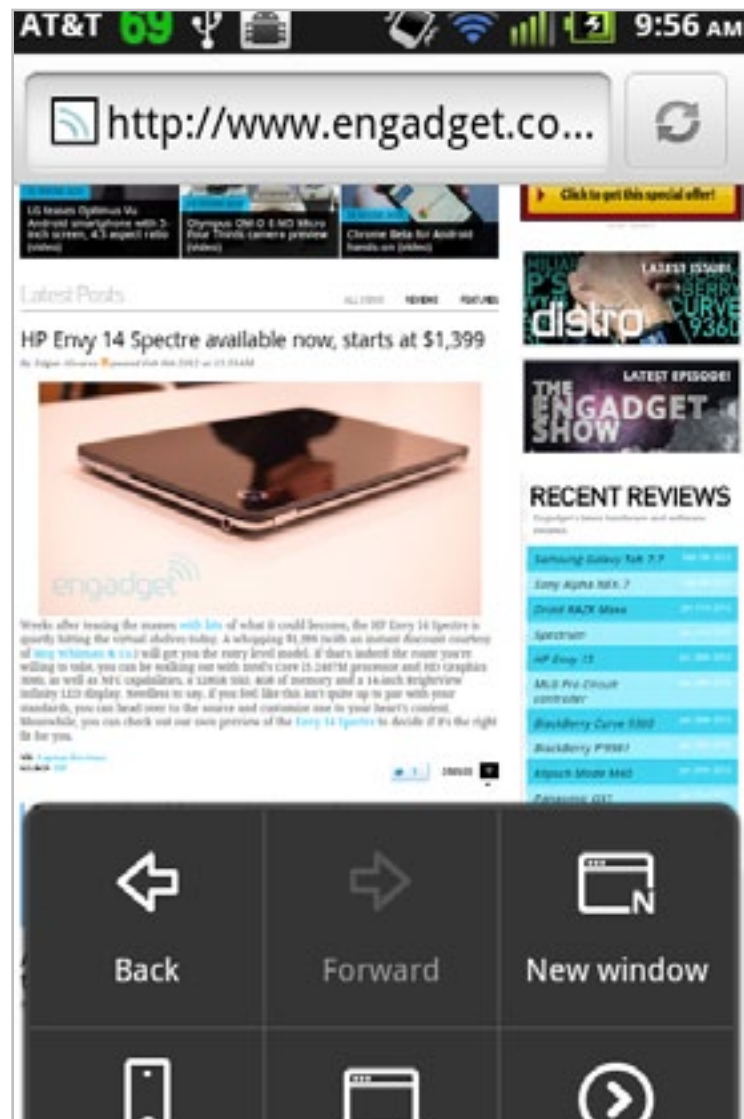
Video capture unsurprisingly maxes out at 720p, and its performance seems to have improved over the company's previous models, but not by much. The motion we saw in our sample videos



appeared relatively smooth overall, but there were a few choppy bits when the camcorder attempted to catch faster-moving objects. We were impressed by the audio, however, as our voice came out loud and clear and the mic picked up surprisingly little street noise.

Software

Since Pantech's new releases have generally been few and far between, we've grown accustomed to seeing a new build of Android installed on each, along with a revamped version of its custom skin. In the case of the Burst, however, only





half of this is true: even though the OS has been bumped up to version 2.3.5, it essentially has the same interface as the Pocket. This came as a disappointment to us, since we weren't overly impressed with the skin to begin with and were hoping to see a few improved features, such as more options for customization.


We can tell Pantech is working hard to come up with a clean and simple user interface, but unfortunately it goes overboard in its quest by offering a cartoonish look. This theme is evident everywhere, from the lock screen to the navbar at the bottom of the home panel and virtually every menu the UI has.

We're going to pick on the lock screen a little bit, because we think it shows a fair amount of promise that falls short on Gingerbread but hopefully will be fine-tuned by the time the Burst gets upgraded to Ice Cream Sandwich (this is definitely happening, by the way, but Pantech hasn't said when). On the screen you'll see a ring with six circles, each one representing its own portal that takes you into a different place on the device.

In addition to the standard unlock circle, there are quick launch shortcuts to get you into the phone's call logs, standard email, web browser, music player and messages. This isn't unlike the lock screen employed by plenty of other skins — HTC Sense comes primarily to mind — but we'd much prefer to be the ones behind the wheel, making the decision as to which shortcuts we'd prefer. For instance, it's downright silly that we can't have a shortcut that takes us directly to the camera, we can't replace the email quick launch with Gmail and we can't be taken directly into the dialpad instead of the call log if we prefer.

The navigation bar located at the bottom of every home screen offers quick access to the phone dialer, messages and web browser. Unfortunately, these options are just as stubbornly unyielding as the lock screen. The app menu is fortunately more customizable, but not by much. We're impressed that Pantech provides the opportunity to uninstall apps directly from this tray without having to do it from the settings menu, but misses the mark by not allowing us to put apps into folders or even separate them out into various categories. The Burst's app tray keeps the same set of background images that we saw introduced in the Pocket, which is a clever tweak but contributes to the UI's cartoonish look and doesn't let you add in your own pictures as an alternative.

Our review wouldn't be complete without a lecture on the bloatware that comes installed on the phone. Both



AT&T and Pantech added their own contributions to the list of 52 pre-loaded apps that either bless or frustrate your life, depending on how you look at each one. Of that number, only seven are uninstallable, and the phone's UI offers no respite aside from the ability to rearrange the apps you don't use and banish them to the last panel in your menu. The usual classics are there, such as Amazon Kindle, AT&T Code Scanner, AT&T Family Map, AT&T Navigator, Featured Apps and Live TV. Pantech's charitable donation to the bloatware cause includes a compass, unit con-

verter, document viewer, handy memo, PC Suite connector, RSS reader, sketch pad and stocks app. Some of them turned out to be rather useful, but as we've argued since the dawn of time, it should be up to us whether or not we're allowed to keep them.

The choice of virtual keyboards is limited to a selection of two: the stock Android board and Swype. We had few issues with either, and Swype is gradually becoming more and more intuitive as it continues to be updated. If neither option tickles your fancy, it's easy enough to download other options from the Market and add them to your collection.

BOTTOMLINE

Pantech Burst

\$50 on contract

PROS


- Amazing performance
- Doesn't feel like a budget LTE phone
- Plenty of internal storage

CONS

- Unresponsive capacitive keys
- Camera needs some work
- Lackluster UI

»If you're looking for LTE on the cheap, the Burst gives you some good bang for your buck.

Wrap-Up

We're willing to go out on a limb and crown the Pantech Burst as the new king of budget handsets. It's not perfect and isn't meant to be, but if you can get past minor flaws like the camera and certain UI elements, you'll find yourself in possession of a powerful handset that's capable of keeping up with the network's LTE titans. Indeed, this was the first time we've truly felt proud to whip out a Pantech phone, and we're hoping this is a harbinger of things to come. We'd love to see this particular device become the poster child for entry-level phones going forward — after all, if this company can do it, so can everyone else. 

Brad is a mobile editor at Engadget, an outdoorsy guy, and a lover of eccentric New Wave and electro. Singer and beatboxer.



REVIEW

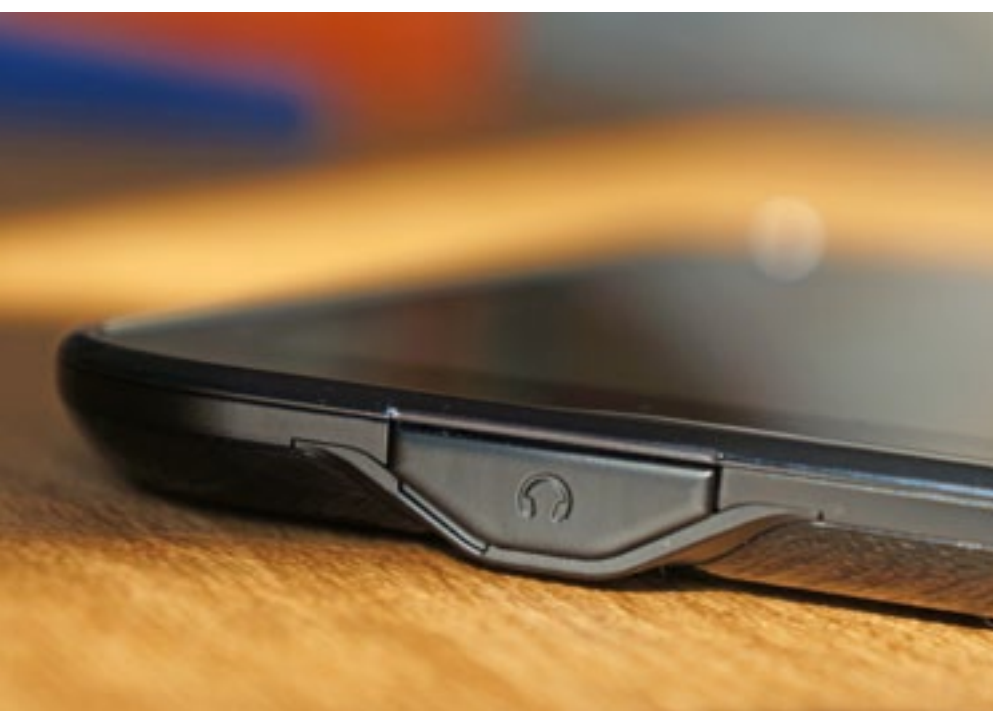
Pantech Element

For a lesser-known brand, Pantech's 8-inch Element surprises with dependable performance and a durable, sleek design. At \$300 on contract, it's slightly overpriced, although still a solid purchase for consumers bent on LTE.

BY JOSEPH VOLPE

You've heard of singin' in the rain (and have likely seen the movie). You may have even attempted it once or twice, but tableting in the midst of a down-pour? That doesn't exactly conjure the same whimsy and spontaneous dance numbers. Yet, Pantech's making such joyous, on-the-go content consumption

possible with the aptly named Element. It's yet another addition to the growing stable of LTE devices propping up AT&T's newly expanded 4G fort. Rather than run the risk of this being seen as another garden-variety Honeycomb tablet, though, Pantech's imbued this guy with waterproofing.



Of course, that's not all this skinned Android slate's bringing to the party. With a dual-core 1.5GHz Qualcomm Snapdragon APQ8060 CPU complemented by 1GB RAM, a 1024 x 768 TFT XGA display and a healthy 6,400mAh battery, this impermeable tab stands on equal spec footing with its post-PC peers. At \$299 on two-year contract, it's certainly priced to sell, but should you dish out the dollars for a middle-ground tablet from the likes of a lesser-known manufacturer? Does a

limited and possibly frivolous imperiousness to water warrant your attention? Should you stash that plastic until Pantech confirms an ETA for that Ice Cream Sandwich upgrade? Find all this out and more as we force this 8-incher to brave the elements.

Hardware

Pantech previously tested the waters of unconventional design when it launched the low-end, oddly shaped Pocket late last year. Though that flair for non-con-

formity isn't really on display here with the Element, there's still a certain *je ne sais quoi* about its build. Lift it out the box and you'll immediately be struck by how elegant this middle-of-the-road tablet appears. True, the company opted for lightweight plastic throughout, eschewing the heavier (albeit premium) materials weighing down HTC's Jetstream. But it hardly matters: this slate simply feels great in hand. It's not an altogether perfect fit, ergonomically speaking — the plastic bordering the perimeter sticks out ever so slightly to interrupt the smoothly curved edges. It's a minor imperfection that would be really irritating were it not for this guy's 16.6-ounce weight, which makes it neither too heavy to hold for long periods of time, nor so light that it feels flimsy.

Whereas the Xyboard 8.2 is tall, thin and trim, the Element is possessed of a huskier build; it's short, squat and rife with asymmetry. At 8.36 x 6.12 x 0.42 inches (212.34 x 155 x 10.67mm), this is clearly an acquired taste compared to more refined offerings. Still, that idiosyncratic design comes with benefits. Like that microSD card slot tucked away at the base, giving users the option to expand the slate's 16GB of internal storage with a 32GB card. That slot, along with HDMI-out, micro-USB and an easily accessible SIM, are hidden under grooved plastic flaps designed to keep water at bay for up to 30 minutes at a depth of one foot. That same motif comes into play again where other hardware keys are concerned, although the

structural implementation is drastically different, with a mostly smooth cover shielding the headphone jack on the left and a rectangular rubber cushion surrounding and rising above the power button up top. The volume rocker is the only external detail to not benefit from any of this waterproofing.

Changing things up a bit is the placement of the Element's speaker and 2-megapixel front-facing camera, both of which reside on the tablet's left bezel, when held in landscape. Normally relegated to the upper most corner of a tablet, this new location communicates a subtle message: that the device should be held in portrait. Indeed, that orientation is the most comfortable option for handling the device. Check out the other side, and you won't be greeted with much aside from that glossy, subtly patterned plastic back, a prominent 4G LTE logo and the 5-megapixel camera located in the upper right. Beneath the non-removable casing are the aforementioned Qualcomm APQ8060 chip (the same as in the LG Nitro HD and HTC Vivid) and that 6,400mAh battery.

Display and Sound

While it pales in comparison to sharper 1280 x 800 panels used on other 7- and 8-inch tablets, the Element's TFT XGA screen offers up a reasonably sharp image given its 1024 x 768 resolution. Truly, this device appears suited for heavy media consumption, as we noticed little loss in visibility and contrast when handling the tablet from a

variety of positions. Take it outside, however, and you'll be hard-pressed to discern anything on screen, even with the brightness bumped up to the maximum. It's a minor ding that hampers the Element's overall ruggedness, so if you plan to call this tab your own, make sure to head for the shade.

Unlike the powerful, dual-speaker setup found on the HTC Jetstream, the sole, front-mounted one used on the Element is serviceable at best, though thankfully the audio doesn't suffer from tinniness. That said, it's easy for the sounds to be overpowered by environmental noise and, we can say that with confidence after having repeatedly cranked the volume to its highest setting. Suffice to say, we recommend keeping a pair of headphones close by.



Cameras

When we first took the Element's 5-megapixel camera out for a spin, we suspected something might be amiss, that the module itself was busted or that, despite its sealed enclosure, water had seeped into its interior during a twenty-minute walk in the rain. Our fears arose from our initial crop of photos, taken just before a light dusting of snow fell, leaving us with a handful of blurry, washed-out stills that seemed to mock our attempts to manually tap-to-focus. And forget about using the zoom function; we had zero luck attaining a clear, usable image.

Surprisingly, shots taken in macro fared much better, but, again, performance was largely hit-or-miss. Later on in the day, after the temperature had risen slightly, we found our growing catalog of pictures taking on a much more distinct (albeit muted) quality. Weather conditions aside, this rear shooter delivered consistent results when shots were framed within a shallow depth of field. Move outside of that narrow range and expect the level of detail to drop drastically.

Amateur photogs looking to mess about with a host of scene modes and exposure settings won't be disappointed by the array available in the Element's camera app. You'll find the usual selection (Portrait, Landscape, Indoor, etc.) but on the whole, the menu is structured so haphazardly that finding your desired filter will entail a few missteps.

When it comes to 720p video, the Element once again under delivers. With



BENCHMARK	PANTECH ELEMENT	MOTOROLA XYBOARD 8.2	SAMSUNG GALAXY TAB 8.9	T-MOBILE SPRINGBOARD
Quadrant ¹	3,063	1,663	2,341	1,871
Linpack (single-thread) ¹	54	45.25	26.85	28.38
Linpack (multi-thread) ¹	86.9	69.79	N/A	55.36
NenaMark1 ¹	56.1	28.87	38.1	57
NenaMark2 ¹	39.3	19.27	18.1	24.5
Vellamo ¹	1,266	1,018.5	N/A	1,057
SunSpider 0.9.1 ²	2,087.1	1,926.9	2,295	N/A

¹Higher is better

²Lower is better

little to no movement of the device itself, the scene captured will evince only a slight reduction in frame rate and clarity. Move gently from side to side, though, and that's when you notice how severe of an effect this dearth of image stabilization has on the product, proving this HD capture feature is most ideal for capturing fleeting, YouTube-able clips. Audio playback was slightly muffled, but that was partly due to the high winds whipping at the time of our test, given we were still able to hear traces of the surrounding intersection.

Network Speeds

There are two immediate truths about AT&T's LTE network in New York City: when it's available, it's mind-bogglingly fast, maxing out at 60 Mbps down. And when it's MIA, you won't really notice. Why? Well, with HSPA+ as a default network option, you'll still be treated to fairly high speeds that hover in the mid-teens. Indeed, this type of downlink per-

formance is a clear demotion from the typical 30 Mbps and up we achieved in real-world LTE testing, but unless you're monitoring a speedtesting app, you probably won't notice. Those fallback 4G frequencies are strong enough to shoulder the demands of streaming music and video, texts and emails, all while delivering various email and other push notifications. Understandably, if you're paying for use of that 700MHz spectrum, you should want abundant, unfettered access to it. Unfortunately, the operator's still in the *baby steps* build-out phase, so coverage around New York City, at least, is spotty, with our connection frequently dropping down to HSPA only to latch onto LTE a block later. Overall, those high-end 4G speeds stayed within the 30 Mbps to 50 Mbps range for downlink and 9 Mbps to 11 Mbps up.

Performance and Battery Life

Bolstered by that dual-core 1.5GHz Qualcomm APQ8060 CPU and 1GB of

RAM, the Element zips along without nary a hiccup. Tellingly, in all of our time testing the tablet, we didn't once encounter the lag and hesitant transitions so often associated with skinned Android devices. The touchscreen is responsive, shifting between the five preset home screens with ease, and that same fluidity is on display when you tap the app drawer and loading applications. Browsing on the tablet is much of the same, with quick page renders when connected to LTE, and without any of that tiling that besots other Honeycomb slates.

As far as benchmarks go, Pantech's tab consistently outclassed the lower-clocked Xyboard 8.2 and T-Mobile Springboard in our usual suite of testing, save for SunSpider 0.9.1 and NenaMark 1, respectively. Those particular losses were marginal at best and don't speak to the remarkable daily performance.

So is there a big, fat battery to keep this tab humming along and indulge its LTE capability? Why, yes, there is and a tremendous 6,400mAh at that. The Element is, without doubt, going to get you through a long flight or Netflix marathon with enough juice left over to surf the web and shoot off some Twitter updates. With light usage, we found the Element lasted the span of a couple of days, and that's with LTE enabled — all told, in line with the company's claims. Factor in the demands of a power user and, according to Pantech's PR, this slate should survive up to 12 hours on a charge — and it does exactly that, if you happen to be

TABLET	BATTERY LIFE
Pantech Element	9:00
Samsung Galaxy Tab 7.7	12:01
Apple iPad 2	10:26
ASUS Eee Pad Transformer Prime	10:17
Samsung Galaxy Tab 10.1	9:55
Apple iPad	9:33
Motorola Xoom 2	8:57
HP TouchPad	8:33
Lenovo IdeaPad K1	8:20
Motorola Xoom	8:20
T-Mobile G-Slate	8:18
Samsung Galaxy Tab 7.0 Plus	8:09
Lenovo ThinkPad Tablet	8:00
Archos 101	7:20
Archos 80 G9	7:06
RIM BlackBerry PlayBook	7:01
Acer Iconia Tab A500	6:55
T-Mobile Springboard (Huawei MediaPad)	6:34
Toshiba Thrive	6:25
Samsung Galaxy Tab	6:09
Motorola Xyboard 8.2	5:25
Velocity Micro Cruz T408	5:10
Acer Iconia Tab A100	4:54

in an HSPA+ only area of coverage. Put through the paces of our formal battery rundown while connected to LTE, however, and that half-day stamina shrinks to a workable nine hours.

Software

We know most of you are hankering for a cold taste of Ice Cream Sandwich — that's if you haven't already bought into Google's most recent Nexus flagship — but you won't find your appetite for Mountain View's latest sated here. All we know is, it's coming at some unspecified point this year. For now, you've got Android 3.2 Honeycomb and a skinned version, at that, with the typical assortment of home screen shortcuts and widgets at your disposal. Don't fret, as the customizations are seriously minor and won't impede your ability to navigate the OS. What might give you pause is the collection of 20-plus apps that come pre-installed. It's not that we don't expect to see crapware like *Enzo's Pinball*, *Bug Village* and AT&T's bevy of apps (Code Scanner, Navigator, etc.) shoveled onto Android devices at this stage in the game, but we'd like to see the practice executed with a measure of restraint. Most frustrating of all, you can't uninstall any of that bloat from the settings menu and return your tab to the virgin state you'd expect to find it in.

Pricing and Data Plans

Pantech, as a brand, doesn't have the cachet of other, more boutique device manufacturers, so it can't rely on name recognition alone to sell its LTE duo: the Element and Burst. Which is why a limited time bundle offered by AT&T makes sense for subs looking to take the plunge (almost quite literally) with this tab and its accompanying smartphone



sibling. Both devices are currently available for \$250 on a two-year contract, along with the requisite minimum service plans: \$35/mo for the Element, in addition to \$40/mo for voice and \$20/mo of data for the Burst.

If you choose to go solo with your tablet purchase, but still want to take part in that subsidized pricing, you'll be able to snag the Element for \$300 on contract with one of two set options: 3GB/mo plus access to AT&T's WiFi hotspots for \$35 or a \$50 option that nets you 5GB of data. Unlike T-Mobile and Verizon, however, you will have to pay \$10 for every 1GB of data over your allotted monthly limit.


Those looking to steer clear of carrier chains can fork up \$450 to buy this tablet outright — pricing that puts it on par with T-Mobile's Springboard and undercuts the \$600 Xyboard 8.2 — to take advantage of a tad more plan flexibility. If you only intend to make extremely light use of your tablet, there

is a \$15/mo choice that gets you 250MB and the same access to the operator's hotspots. Be mindful, though, that every 250MB over your allotment will result in an additional \$15 fee.

Wrap-Up

Admit it: an 8-inch waterproof, LTE-enabled tablet makes for a pretty compelling purchase on paper. Couple those sweet-spot features with solid, everyday performance, a smooth Honeycomb-based user experience and a 6,400mAh charge that'll last through nearly half a day of heavy use and you've got yourself several strong reasons to think long and hard about this guy. But when you factor in the sad state of the Element's dual camera setup and its poor outdoor visibility, you might start to feel precognitive pangs of buyer's remorse kicking in.

So, what's the verdict? Should you clasp this slate to your breast and dance about in a torrential downpour, belting out showtunes and banging out tweets in full gale force, or do we order Pantech's tab to walk the plank, and sink below its one-foot threshold? Well, we'll let price be the deciding factor here and at \$300 on two-year contract, it's perfectly positioned to lure consumers away from Motorola's comparatively overpriced (\$430 on contract) and underperforming Xyboard 8.2 — all you're missing out on is that familiar Droid branding. Take AT&T up on its tempting limited time bundle that pairs this unit up with Pantech's other LTE spawn the Burst and you'll really be stretching the limits

of your purchasing power. As a stand-alone product, however, and without the backing of a major marketing push, the Element's likely to disappear, undeservedly, into the unending stream of me-too Android tablets; a middle-ground oddity coming out of nowhere and attracting little-to-no attention. 

Joseph Volpe is ambiguously ethnic. He is also an Associate Editor at Engadget.

BOTTOMLINE

Pantech Pantech Element

\$300 on contract

PROS

- Smooth user experience
- Waterproof enclosure
- Blazing LTE speeds
- Hearty battery life

CONS

- Poor screen visibility outdoors
- Feels a bit pricey for what it is

»For a lesser-known brand, Pantech's 8-inch Element surprises with dependable performance and a durable, sleek design. At \$300 on contract, it's slightly overpriced, although still a solid purchase for consumers bent on LTE.



REVIEW

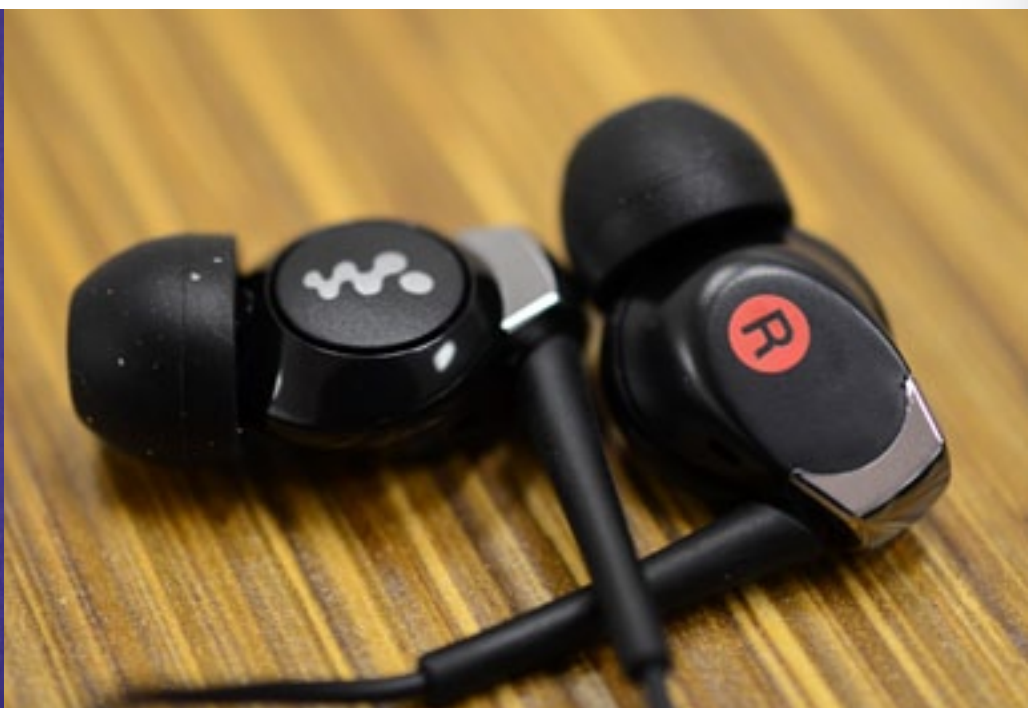
Sony Z Series Walkman Player

Despite a few quirks, the Walkman Z is a solid choice for those seeking a PMP running (nearly) vanilla Android.

BY JOE POLLICINO

Since it was announced last August, we've anxiously been waiting for Sony's flagship Walkman Z (the first to feature Android) to hit US shores. (It made it here well after the holidays passed. Better late than never, right?) While Sony is billing the Z as a Walkman first and foremost, its spacious 4.3-inch display and 1GHz Tegra 2 SoC ensure it's pow-

erful and well-sized for playing games and generally making the most of Gingerbread. The device will be available in a variety of flavors, with up to 32GB of storage (\$330), though for the purposes of this review we've been rocking the entry-level 8GB model (\$250). Although we haven't exactly been charmed by similar devices vying for a



piece of the iPod Touch's market share, the Walkman Z has plenty of promise. The question is, does it deliver? And does it deserve your \$250 when it goes on sale in March?

Hardware

Unboxing the Walkman Z you won't find much included; there's a set of earbuds and a USB to WM-port cable for syncing and charging. Once you get the player in your hands, you'll quickly be taken aback by what a gorgeous piece of

kit this is. Along the device's front, you'll find a glossy black finish that blends in with its 4.3-inch screen — as a splashy touch, it extends over to the edges of the device. Although we love the accents, it turns out that the corners easily scuff thanks to the PMP's bold edges. Users with smaller hands may find that the device digs into their palms when held in the landscape orientation. Furthermore, it could use some nipping and tucking. According to Sony, it measures in at just about 2.88 x 5.38 x .44 inches

The design lends itself so well to gaming that we're disappointed it's not a PlayStation-certified device.

(70.9 x 134.4 x 11.1 mm when you factor in the bezel and folds).

Although the chipped edges left us wanting more in the way of durability, the back of the Z has a slight contour, making it a dream to hold in the hands, especially in landscape mode. The design lends itself so well to gaming that we're disappointed it's not a PlayStation-certified device. We have to say, though, it's not particularly svelte, with a thickness of about 11mm at its pudgiest points. Surprisingly, that curvy shape didn't impede our holding the player in portrait, as we found ourselves planting our fingers on the sides instead.

Taking a tour around the device, there's a power button up top, while the right side is home to the volume rocker, micro-HDMI socket and "W.Control" launcher. Considering this is a media player, we were disappointed with the feel of the rocker. On our unit, it was slightly slanted toward the up position, making it feel almost stuck in place compared to the throw of the volume down portion. The bottom of the Z is where you'll notice a looped area

(wrist strap?), a proprietary WM-port for charging / syncing and a reinforced 3.5mm headphone jack. All of the ports lend themselves well to tight connections, ensuring our cables didn't easily shift out of place. The headphone jack does bulge out a few millimeters from the back and the bottom, but we were happy to have the extra thickness in the occasional times when we snagged our headphones' cable while walking.

Around back, you'll notice a smooth metallic purple finish and duo of small speakers, along with a recessed reset button. Overall, the hardware feels very well assembled, proving resistant to flexing and (to a degree) fingerprint smudges. Although it's made of plastic, in a blind test we'd swear that we had a metal slab in our hands. Noticeably absent, however, are any cameras — a reminder that the Z is a media player at heart. We're not exactly saddened by the exclusion, but it's a puzzling omission, given that competing devices like the Samsung Galaxy Player and iPod touch include this and still manage to cost less. Lastly, you'll be able to use voice control and record memos thanks to a built-in microphone, which isn't visible from the outside of the device. Don't get too excited, though, as the sound quality there is mediocre at best.

Moving back to the front, Sony's paired the Z with an 800 x 480, LED-backlit TFT LCD. While it's not the best panel we've ever seen, we have little to complain about, thanks to the reasonably deep blacks and pleasing colors. View-



The Z lacks any expandable storage options, which could be a big problem if you go with the lowest-end 8GB model we reviewed.

gone a long way in making them easier to make out in our peripheral vision.

Another disappointment for many will be the lack of expandable storage. Following in the iPod touch's footsteps, the Z lacks any expandable storage options, which could be a big problem if you go with the lowest-end 8GB model we reviewed — we had a paltry 4.58GB of usable space to store files. Sure, there's always Sony's Music Unlimited service or even others like Google Music for streaming over WiFi, but if you like your files to be local, then we'd suggest opting for the larger 16 or 32GB variants.

Performance and Battery Life

Internally, the Z packs an accelerometer, a Tegra 2 SoC clocked at 1 GHz along with 1GB of RAM, Bluetooth 2.1 + EDR and 802.11 b/g/n WiFi. Sure, as far as mobile devices go, these specs are fairly humdrum, but they're enough for mostly fluid performance. You'll

ing angles are wide enough to appease two viewers at a time, and it can get extremely bright — so much so that we found its lower settings adequate most of the time. Although there's nothing in the way of a physical home button near the bottom, you'll find a trio of capacitive buttons for back, home and launching menus. Each responded well to our every input, but sadly, Sony's opted to exclude any backlighting or haptic feedback. The design choice hampered our use of the Z anytime we found ourselves in a dimly lit room. If you're familiar with Android devices, it shouldn't be a huge problem given the muscle memory you're likely to have built up, but even white paint in place of silver would have

BENCHMARK	SONY Z SERIES WALKMAN PLAYER	SAMSUNG GALAXY PLAYER 4.0	HTC REZOUND
Quadrant	2,199	1,651	2,347
Linpack Single-thread (MFLOPS)	33.268	17.64	52
Linpack Multi-thread (MFLOPS)	13~	N/A	60.3
NenaMark1 (fps)	54	50	53.5
NenaMark2 (fps)	28	N/A	35.8

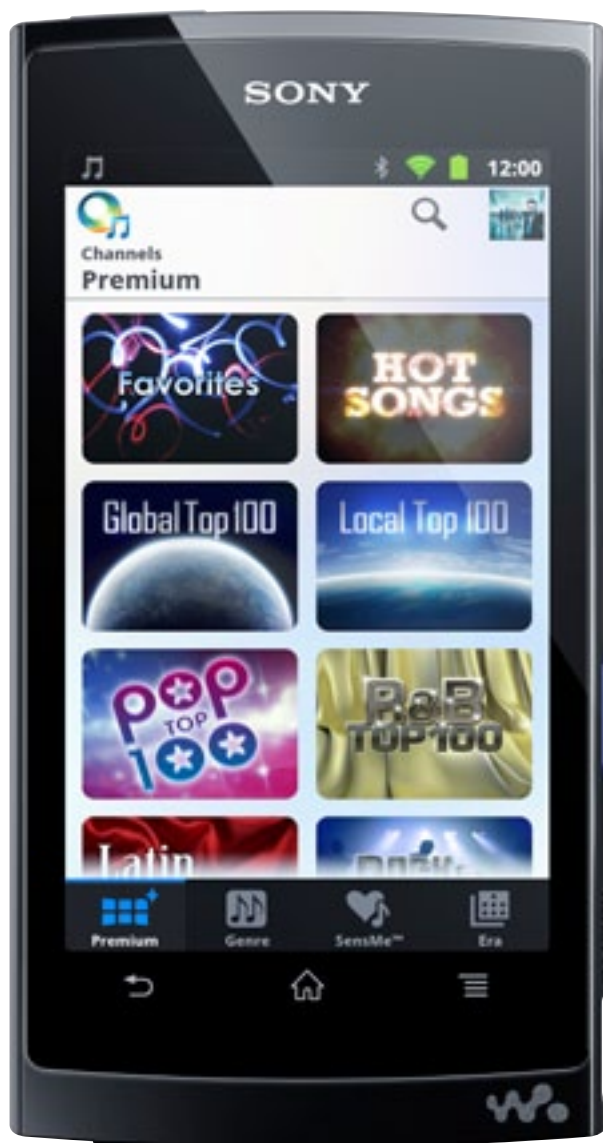
Higher the score the better

also have access to FM radio as long as you have headphones plugged in to act as an antenna. Menus scroll smoothly, and even graphically intense games run free of hiccups. Occasionally, though, its performance was hampered by app error messages. The few times that this occurred, every app on the device would simply fail to open, usually warranting a reboot to fix the issue. Even more than that, though, the most glaring issue we encountered were some incredibly slow load times when using the native Gingerbread browser — in many instances it would take minutes to load simple webpages over WiFi, while our other mobile devices on the same network finished within seconds.

So, how well does it stack up to the bevy of other Android devices out there? Quadrant averaged out at 2,199, putting it right above the HTC Vivid. In contrast, Sammy's Galaxy Player 4.0 only mustered up a score of 1,651, even though its screen has the same resolution as the Walkman — an important spec where Quadrant is concerned.

Meanwhile, Single-threaded Linpack left us with a healthy score of 33.268 — a boost over the Galaxy Player, at least, though not flagship phones like the Rezound. Lastly, in NenaMark the Z landed a decent average framerate of 54 fps, while in version two it managed roughly 28 fps.

Of course, performance means less if your PMP needs charging throughout the day to keep up. Thankfully, that wasn't the case with this guy. WiFi on (not connected), looping a video at 50 percent brightness, the Z managed to stay strong for five hours and 29 minutes — just six minutes more than the Galaxy Player 4.0 lasted in the same test. All told, Sony rates the Z at five hours for video playback and 20 hours for audio (14 with Bluetooth enabled). Still, Apple claims up to 40 hours of music playback / seven hours of video on its current iPod touch, so it's something to keep in mind. We were usually able to go for a few days without plugging in while using the Z as our secondary media player.



Software

As we mentioned, the Z chugs along on Gingerbread (version 2.3.4, to be exact). Thanks to the openness of Android, it's many times a gamble when it comes to how much bloatware you'll find on your shiny new device. In the case of the Z, aside from a demo version of Riptide GP, a few pre-loaded tracks and included apps like Sony's WiFi checker, DLNA and media players (among others), we're happy to report that customization is light and relatively free of anything that can get in the way. As expected, you'll have access to the Android Market, so loading the device up with whatever apps you desire shouldn't be a problem. Notably, if you happen to have a

Bravia TV in your abode, you'll be able to "Throw" your media to it wirelessly from the PMP.

As far as the Walkman part goes, Sony's added some features that aim to keep you using its video and music apps within the device. While you'll be free to use any service you wish, like Google Music, those won't allow for full optimization. Within the home screens, you'll find a widget for basic playback control — the so-called "W.Control" button on its side will also display a pop-up version of this that's accessible even when the player is locked. Sadly, however, the button cannot be reassigned for other tasks or apps. The pop-up can be navigated with taps, or Sony's W.control, which merely allows you to swipe forward and back to change songs. At best, W.control feels gimmicky to us, but it's still nice to have the option available.

When the device is unlocked, you'll also have access to your full library of music.

So, here's the big reason to use the included players: Sony's loaded the Z with a number of equalization options and proprietary DSPs to enhance your audio. Problem is, unless you want to use Sony's supplied goods, you won't have access to any of it — if you're a big Google Music user like us, it hinders the reasoning for going with the Z in the first place. But alas, such is to be expected when running Android, as your options for a music player are only limited by what you can manage to load into it. Specifically, the EQ is of the five-band variety (allowing for two cus-

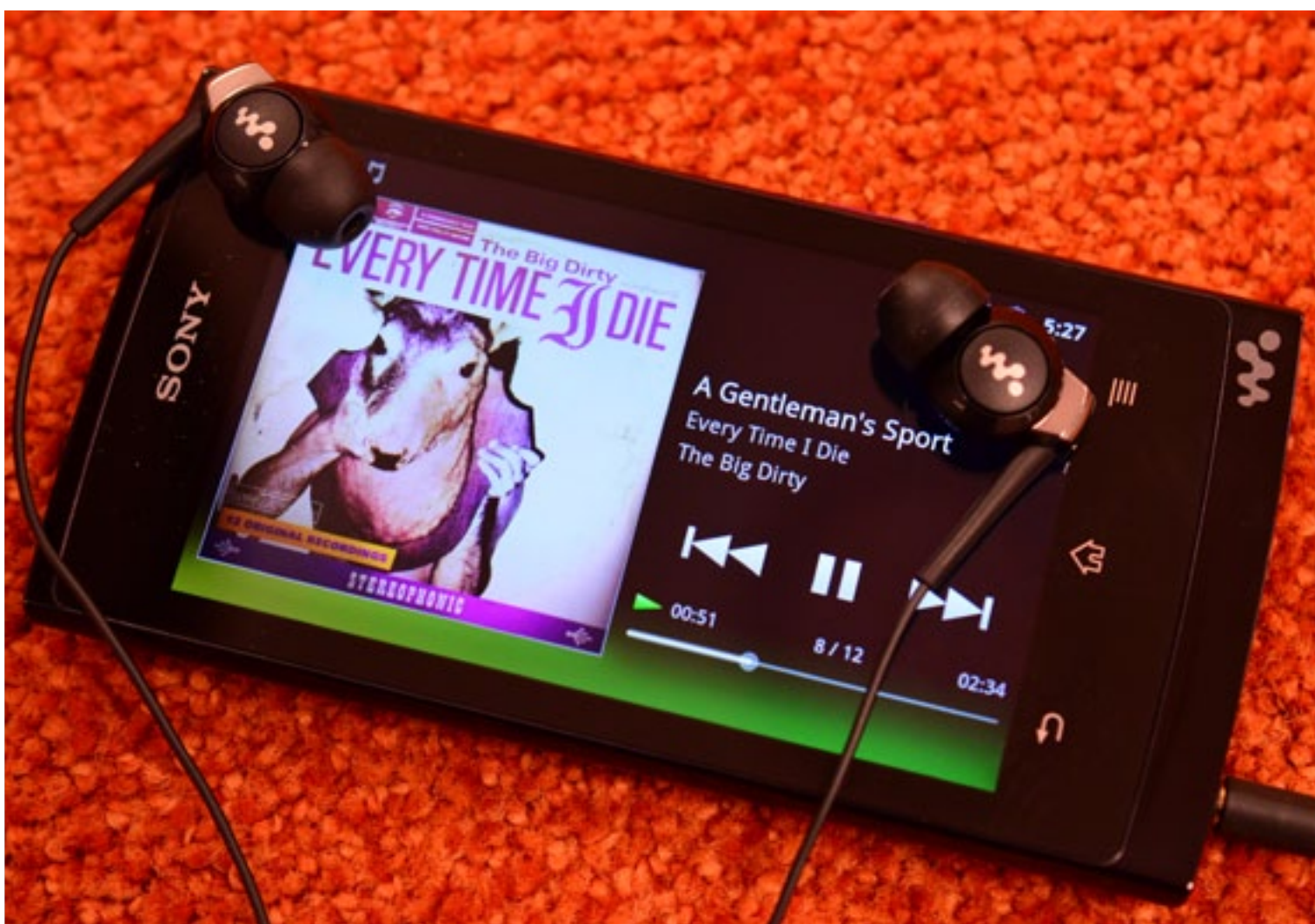


Sony's loaded the Z with a number of equalization options and proprietary DSPs to enhance your audio.

tom presets), with Sony's "Clear Bass" as a sixth parameter. This is essentially a quick way to raise bass levels beyond what would normally cause distortion in cheaper cans, but it's not to say that bass heads won't love it in general.

Past that, you'll notice a VPT virtual surround toggle, which can mimic the sound of different rooms like a stadium or lounge. The virtualization can also be set for a more natural front-facing stereo sound, if you're not fond of the side-by-side feel headphones tend to have. We can't say that we used VPT very often, but we're still glad the option was

there. And that's not all. There's DSEE (a setting to enhance the treble in lower quality files), Clear Stereo (a basic stereo expander) and a Dynamic normalizer to even out the levels between songs. Lastly, there are two options for enhancing the built-in speakers: xLoud and Clear Phrase. The former allows the speakers to gain a boost in volume beyond their normal functionality, while the latter voices the audio for a fuller sound. Overall, xLoud and Clear Phrase proved most useful when we just wanted to pick up the device sans headphones — still, it's worth noting that the



built-in speakers won't be of much use in louder environments.

Speaking of the Sony supplied music app, you may be wondering, "Well, is it any good?" The short answer is, yes. It loads quickly and movement within it is snappy and free of lag — swiping up from the bottom brings up the basic playback controls similar to the home screen widget. You'll have a basic choice between list and grid view for your music, but if you want something more visual the cover art view scatters your albums across the screen. From here you'll be able to flick the covers around. However, it feels like a jumbled mess regardless of how smooth it is. Lastly, Sony's loaded the player with SenseMe channels — think iTunes Genius. Based on 12 tonalities, the feature can

listen through your library and sort it under categories like "Emotional" and "Extreme." As smooth as Music Player was, we still found ourselves opting to use Google Music despite its lack of sound customization options.

The reason is simple, too: Sony supplies MediaGo software for syncing music and media to Windows PCs, but Mac users currently aren't receiving any of that love, leaving USB drag-and-drop as the only option. Thankfully, the PMP is smart enough to sort everything out on its own, but that doesn't make the process feel any less archaic. This is a big problem with the player, as it makes it less compelling for folks using Google Music or iTunes to switch over to a device that makes basic syncing a real pain — not everyone will

want to use Music Unlimited or Walkman apps when the device is open for business with others.

The Z really shines when paired with a solid set of headphones.

Sound

Unless we have you completely wrong, you'll mainly be using the Walkman for listening to music. Agreed so far? Good. The Walkman's voicing is slightly crisper and more tightly focused than what we've heard from other devices we have lying around, including the iPhone 3GS. Sony refers to the internal digital amplifier as its S-Master MX. The Z really shines when paired with a solid set of headphones, and with that said, it reminded us of Sony's MDR-NC200D. Make no mistake, this Walkman sounds exciting and full-bodied, and while it may not be up to snuff for those eyeing devices from companies like Cowon, it easily trumps our experience with Samsung's Galaxy Player 4.0. For anyone curious about its supported formats, you'll be limited to WMA, MP3, Linear-PCM and AAC-LC (no good vibes for FLAC and the like, and of course there are always third-party apps).

If you're not rocking your own set of earbuds, Sony's included set does a decent job of funneling sounds into

your ear canals. The bottom line is that they're a cheap set of moderately comfortable 'buds that easily trump what you'll get from the bitten fruit — just don't expect to be blown away by the fidelity. They'll push out a fair amount of bass, but you'll be dealing with tinny highs. The PMP's built-in speakers are also nothing to phone home about, but they do prove useful in a pinch, especially for watching videos and playing games. Thanks to those DSPs Sony's thrown in, you'll be able to cleanly boost the volume beyond normal limits as we mentioned earlier.

Configurations and The Competition

So, now that we've spent over 2,000 words discussing the player, let's talk about your options for ordering one and how it stacks up to a few other key players on the market. In the US, at least, the only choices you'll have include the color you see here, and storage flavors of 8GB (\$250), 16GB (\$280) and 32GB (\$330).

When we talk about the Walkman Z's competition, we're really referring to two devices: the iPod touch and the Android-based Galaxy Player. Starting with Samsung's contender, you'll have a choice of a 4- or 5-inch screen, not to mention expandable storage (both ship with 8GB of internal space). Despite being priced slightly lower (\$230 / \$270), its performance is poor enough that we recommend leaving this one on the shelf. Bring the iPod touch into the


fray, though, and the Walkman suddenly gets some more serious competition — something to think about considering it's been unchanged for well over a year now. With a starting price of \$200 for 8GB, the touch is simply a better buy, with all the benefits of iTunes integration, plus a higher-res, 960 x 640 display and dual cameras for photos, filming and video chat. Meanwhile, extreme audiophiles can always go with the Cowon D3, but that stellar

audio comes at the expense of a heavily skinned version of Android.

Wrap-Up

Sony's Walkman Z has left us in a bind of sorts. The PMP has a lot of good in it when you stack it up against a direct competitor like the Samsung Galaxy Player 4.0, but it's not without a notable amount of minor annoyances. The hardware looks and feels great, but then you're left with palm-pushing edges that love to get scuffed. The on-board DSP and Walkman controls are great, but they only function if you use Sony's apps for your music. The list goes on, but surely, you get the gist.

So here's where that leaves us: if you've gotta have a moderately powerful Android PMP focused on music listening and don't mind non-user expandable storage, we'd certainly recommend the Z over Samsung's Galaxy Player. Even if you're not going to use Sony's supplied services and sound-shaping options, the Z sounds fantastic even when you're using other music apps.

As far as PMPs in the land of Androids go, though, the Z is a powerful option that's sure to please. On the flip side, with the iPod touch costing \$50 less despite its extra features — namely, twin cameras — the Walkman is going to be a hard sell for folks in search of a solid, all-purpose media player. 

Joe's functionally useless without his glasses — a fact you really shouldn't disclose to any enemies.

BOTTOMLINE

Sony Z Series Walkman Player

\$250+

PROS

- Impressive audio quality
- Tegra 2 provides snappy performance
- Plethora of sound options with Sony apps

CONS

- Hardware chips easily
- Walkman features limited to included apps
- Relatively expensive
- No transfer software for Macs

» Despite a few quirks, the Walkman Z is a solid choice for those seeking a PMP running (nearly) vanilla Android.

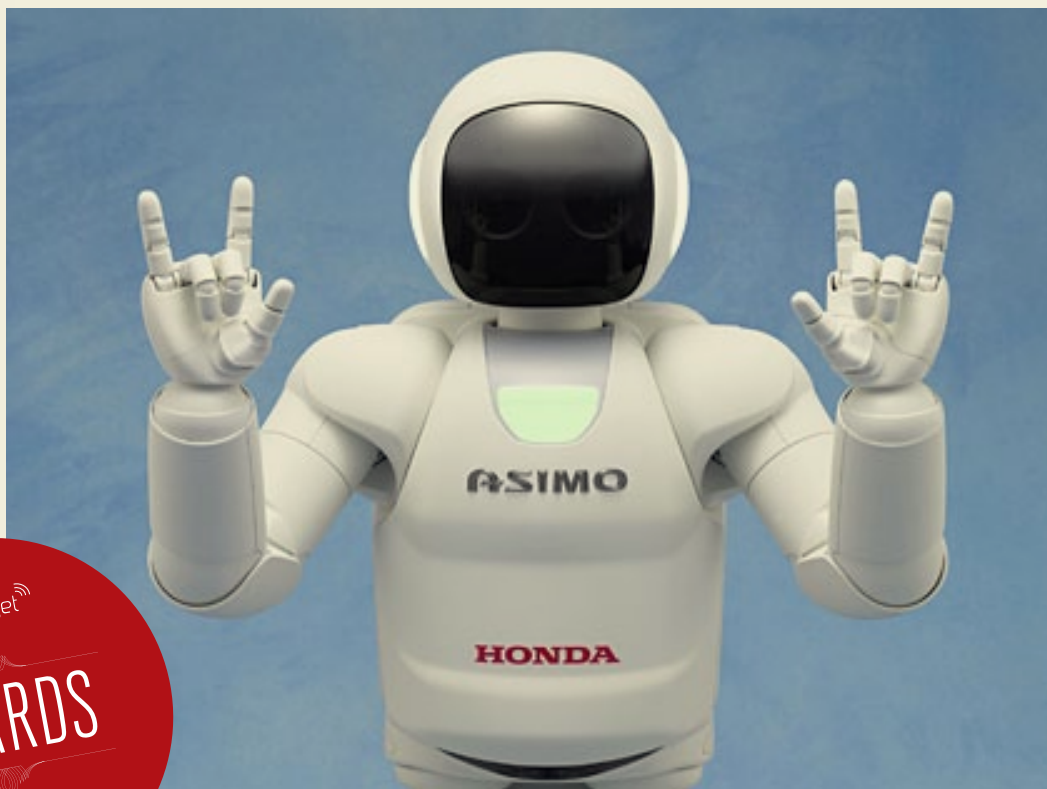


THE RESULTS FOR THE 2011 ENGADGET AWARDS — ARE IN! —

With more than a quarter of a million total votes, the response this year has been tremendous — and no, that's not just another name for the Galaxy Note, which garnered just 3.5 percent of tallies in the smartphone category. Instead, the iPhone 4S took top prize for smartphones, followed by the Samsung Galaxy S II as the runner up. The ASUS Zenbook was the first pick among this year's laptops, with the Apple iMac besting the rest of 2011's desktops. Canon and Nikon battled it out till the end, but the former eventually came out ahead, earning 17.9 percent of the digital camera vote for its T3i, while the Nikon D5100 represented a very respectable 17.6 percent. That's just a small sample of this year's top gadgets — there are 15 categories in all, and we're crowning both Readers' and Editors' Choice winners for each. Here's to winning! — *Zach Honig*

ROBOT

OF THE YEAR: 12,020 TOTAL RESPONDENTS



#1 ASIMO
41.2% [4,948 VOTES]

2. Mitt Romney
33.9% [4,075 VOTES]

3. iRobot Roomba 700
18.6% [2,235 VOTES]



EDITORS' CHOICE

IROBOT ROOMBA 700

We've seen our fair share of robots in 2011, but none are as practical as Roomba. iRobot's 700 Series has been refreshed in all the right places – there's a new dirt concentration mode, a full bin indicator and a self-cleaning brush.



OF THE YEAR: 10,667 TOTAL RESPONDENTS

#1 SAMSUNG GALAXY PLAYER

36.7% [3,917 VOTES]



2. Klipsch Gallery G-17 Air
13.9% [1,479 VOTES]

3. Sonos Play:3
13.6% [1,454 VOTES]



EDITORS' CHOICE

SONOS PLAY:3

Sonos has made a name for itself in the networked audio space, and the Play:3 reminds us of why. This cordless setup is easy to configure and offers excellent sound quality – it starts at \$299.



#1 GOPRO HD HERO 2

28.3% [3,490 VOTES]



WEARABLE OF THE YEAR: 12,336 TOTAL RESPONDENTS DEVICE

2. Motorola MOTOACTV

24.5% [3,028 VOTES]

3. Jawbone Up

22.1% [2,732 VOTES]

EDITORS' CHOICE



WIMM One

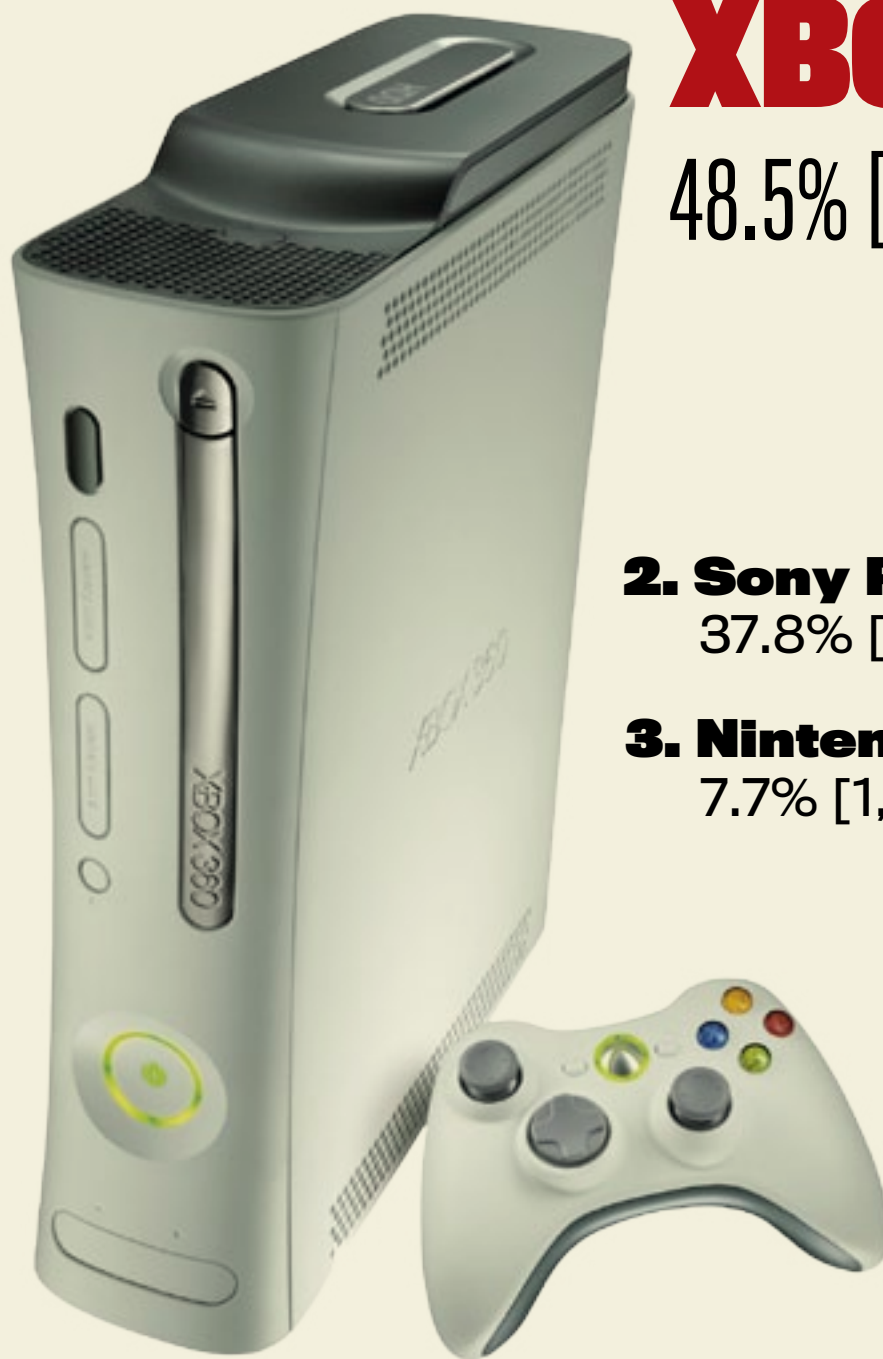
Not everyone needs Android on their wrist, but if you do, you can't go wrong with the WIMM One. And at \$200, it's a smaller investment than you might expect.



OF THE YEAR: 20,881 TOTAL RESPONDENTS

#1 MICROSOFT XBOX 360

48.5% [10,137 VOTES]



2. Sony PlayStation 3
37.8% [7,887 VOTES]

3. Nintendo Wii
7.7% [1,599 VOTES]



XBOX 360

The PlayStation Vita didn't make it to U.S. stores in 2011, and the Nintendo 3DS doesn't exactly win Console of the Year – literally. We've been quite fond of the Xbox 360, and that hasn't changed. We're still in love.

EDITORS' CHOICE



HDTV



OF THE YEAR: 14,208 TOTAL RESPONDENTS

#1 SAMSUNG D8000 PLASMA

28.8% [4,093 VOTES]



2. Sony Bravia HX929-Series

16.3% [2,314 VOTES]

3. Sony Bravia HX820-Series

13.5% [1,913 VOTES]

EDITORS' CHOICE

PANASONIC VIERA VT30

Yeah, it supports 3D, but that's not what makes the Viera VT30 a winner. This THX-certified plasma packs a single-sheet glass panel and Panasonic's Infinite Black Pro2 filter – all said, it's picture-perfect.



PRODUCT OF THE YEAR: 11,403 TOTAL RESPONDENTS

#1 ROKU 2 41.4% [4,724 VOTES]



2. Tivo Premiere Elite
18.9% [2,158 VOTES]

3. WD Live TV
17.6% [2,010 VOTES]



EDITORS' CHOICE

ROKU 2 XS



The Roku 2 XS is more of a great thing – it costs no more than its predecessor, but offers a smaller footprint and a game remote. Oh, and then there's Angry Birds – included in the \$100 purchase price.

#1 MICROSOFT TOUCH MOUSE

41.7% [4,758 VOTES]

2. Razer Mamba

30.6% [3,485 VOTES]

3. Razer Imperator

13.7% [1,558 VOTES]



PERIPHERAL

OF THE YEAR: 11,405 TOTAL RESPONDENTS



Want to bring those iPad pics to print without investing in an AirPrint-compatible device? Heck, why not? xPrintServer brings all of your networked printers within iOS's reach, with a \$150 silver box.



OF THE YEAR: 15,542 TOTAL RESPONDENTS

#1 CANON T3i
17.9% [2,775 VOTES]



2. Nikon D5100
17.6% [2,742 VOTES]

3. Canon PowerShot S100
15.5% [2,406 VOTES]

EDITORS' CHOICE



Sony's NEX-C3 is a solid performer, and at \$549 with an 18-55mm lens, it's the best bargain out there. In fact, we thought it was such a great deal that we purchased one kit for every member of our CES hands-on team.



#1 LAMBORGHINI AVENTADOR LP700-4

31.4% [4,657 VOTES]



2. Boeing 787 Dreamliner
26.5% [3,928 VOTES]

3. Tesla Model S
22.3% [3,310 VOTES]

TRANSPORTATION

PRODUCT OF THE YEAR: 14,848 TOTAL RESPONDENTS



EDITORS' CHOICE

TESLA MODEL S

Inside and out, the Tesla Model S is one sweet ride. There's a gorgeous 17-inch display in the dash, fast DC charging and a proposed \$49,900 base price. Let's roll!



DESKTOP

OF THE YEAR: 19,158 TOTAL RESPONDENTS



**#1 APPLE
iMAC**

37.6% [7,202 VOTES]

2. Alienware Aurora
24.3% [4,662 VOTES]

3. HP TouchSmart 610
14.7% [2,823 VOTES]

IMAC 27-INCH

Apple's iMac is the ultimate all-in-one – we're particularly fond of the 27-inch model and its 2560 x 1440-pixel display. It also includes native support for adding two external 30-inch monitors for one killer setup.



EDITORS' CHOICE



#1 ASUS Zenbook UX31

27.1% [7,598 VOTES]

2. Apple MacBook Air
20.3% [5,677 VOTES]

3. Apple MacBook Pro
14.3% [4,009 VOTES]



LAPTOP

OF THE YEAR: 27,997 TOTAL RESPONDENTS

EDITORS' CHOICE



MACBOOK AIR

The ASUS Zenbook was a serious contender for 2011, but Apple's latest MacBook Air is the super-thin laptop to beat. It's sleek, slim and powerful enough to handle anything you throw its way.



OF THE YEAR: 20,139 TOTAL RESPONDENTS



#1 Kindle Fire 49.7% [10,012 VOTES]

2. Amazon Kindle

18% [3,633 VOTES]

3. Amazon Kindle Touch

11.6% [2,334 VOTES]

EDITORS' CHOICE

KINDLE FIRE

This tablet / e-reader hybrid costs \$199. That's a tablet and an e-reader for less than 200 bucks. Amazon's loss leader is your win – a very solid win at that.





TABLET

OF THE YEAR: 29,164 TOTAL RESPONDENTS

#1 Apple iPad 2 37.1% [10,816 VOTES]



2. ASUS Eee Pad Transformer Prime
35% [10,195 VOTES]

3. Samsung Galaxy Tab 10.1
8.7% [2,547 VOTES]

EDITORS' CHOICE

IPAD 2

There was plenty of tablet competition this year, but Apple's latest slate bests them all in our books. Combined, various flavors of the Galaxy Tab make for a solid runner-up, so we'll be keeping a close eye on Samsung in 2012.



OF THE YEAR: 18,993 TOTAL RESPONDENTS

**#1 BlackBerry
PlayBook**
33.7% [6,375 VOTES]



**2. Google
Chromebook**
21.1% [4,186 VOTES]

3. HP TouchPad
9.8% [1,854 VOTES]

EDITORS' CHOICE



HTC THUNDERBOLT

It's never easy crowning a device "Worst Gadget of the Year," but HTC's Thunderbolt made the task slightly less grueling, thanks to its *awful* battery life, bulky design and inconsistent performance. A two-year contract means there's no early escape from this mistake.





#1 APPLE iPhone 4S

26.9% [8,114 VOTES]

2. Samsung Galaxy S II

19.8% [5,976 VOTES]


3. Samsung Galaxy Nexus

11.9% [3,577 VOTES]

SMARTPHONE

OF THE YEAR: 30,173 TOTAL RESPONDENTS

GALAXY NEXUS

The Galaxy Nexus has a gorgeous 4.65-inch HD Super AMOLED display, excellent battery life and it's a top performer through and through. Oh, and it ships with Ice Cream Sandwich. We'll take two. 

EDITORS' CHOICE





PREVIEW

OS X Mountain Lion (10.8) In-Depth Preview

BY BRIAN HEATER

You can bid farewell to the days of Apple's theatrical OS reveals — at least until OS 11 rears its head, anyway. In the meantime, the outfit has seemingly been content to strip away more and more pomp and circumstance with every subsequent big cat release. Lately, the company has settled into an evolutionary release schedule, eschewing full-fledged makeovers in favor of packing in lots of smaller changes, many of them quite granular indeed. It's a trend that can be traced as far back as 2009's

OS X Snow Leopard (10.6), a name designed to drive home the point that the upgrade wasn't so much a reinvention of the wheel as a fine-tuning of its predecessor, Leopard.

The arrival of Lion (10.7), though, marked a full upgrade. With features like Launchpad and Mission Control, it seemed like it might be the last version Cupertino dropped before finally pulling the trigger on operating system number 11, and perhaps transitioning to something with an even stronger iOS



influence. Right now, at least, the company's not ready to close the book on chapter X, but it is giving the world a first peek at 10.8. Ladies and gentlemen, meet Mountain Lion.

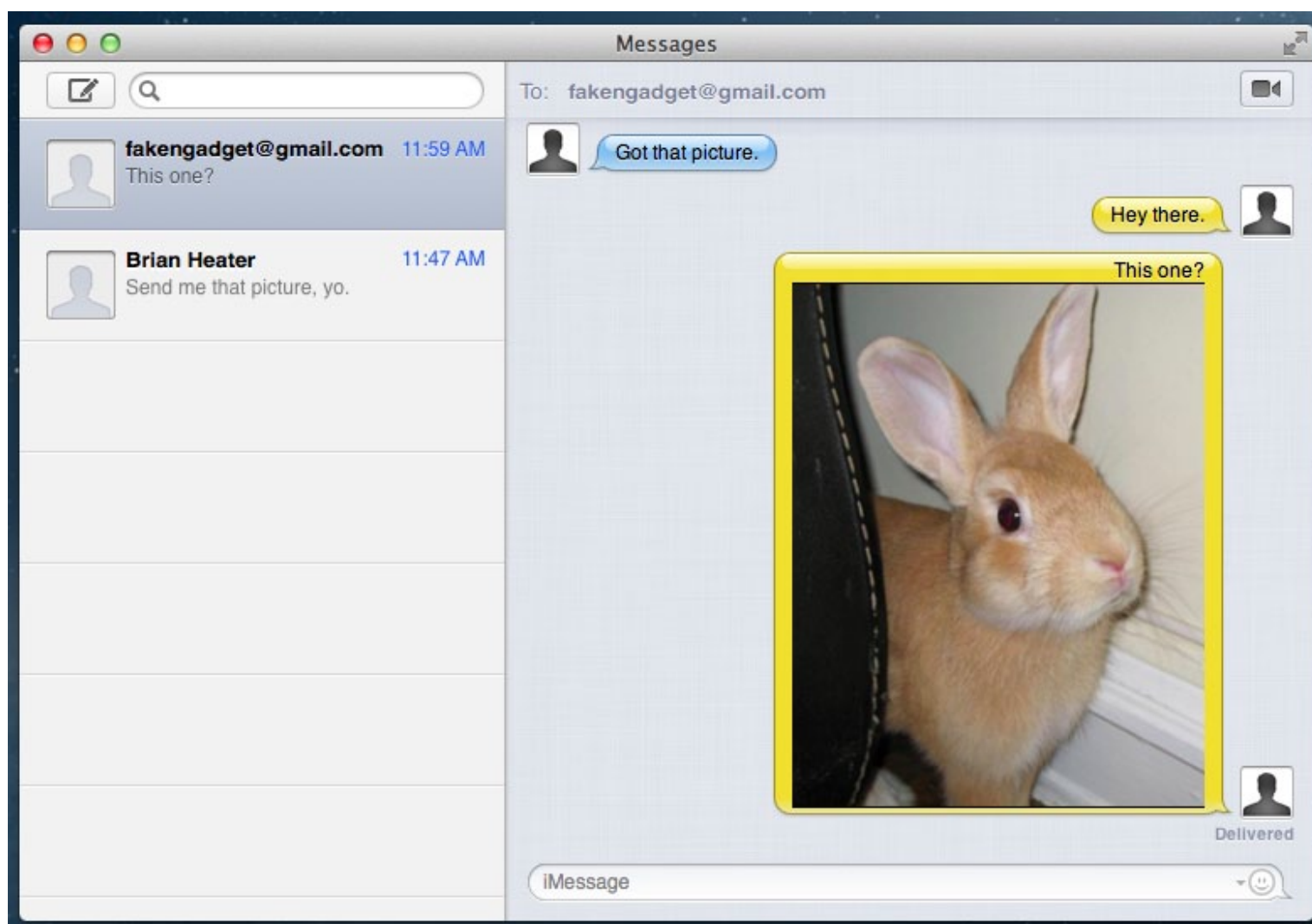
What can we say? It's more of the same: this release introduces a slew of feature enhancements, and of the ones Apple is highlighting, practically all were borrowed from iOS. And we do mean borrowed: the company has cloned some of the best features from its mobile platform. Until now, Mission Control has roughly approximated the iPhone's grid layout in a desktop setting — but that feature always felt like a bit of an aside, something the user could safely ignore if he or she saw fit. This time out, the mobile influence is far

more robust, baked in to the point that it will almost certainly force upgraders to adjust their workflow.

We got our hands on an early version of the OS — so early, in fact, that it's something of a pre-developer build. (Heck, there isn't even an image of a mountain lion to choose from in the default wallpapers.) The version available to developers today should address some of the kinks we encountered during our testing, not that we suffered all that many hiccups. So what's new in this version?

iCloud

Mountain Lion marks the first major OS X release since the public version of iCloud rose from the ashes of




MobileMe last fall. Predictably, 10.8 sees a much deeper integration with Apple's revamped service. Early on in the installation process, you'll be asked to sign into or create an iCloud account, choosing your .Me address, which, as the system points out several times, cannot be changed later on. As annoying as it might be to create yet another account with yet another web-based service, we highly recommended it. If you don't launch yourself into the iCloud, you'll be missing out on some key features.

When you sign in, the system will merge information stored locally with what you've already uploaded to iCloud. Using iCloud's automatic setup, you can sync a slew of essential functions across your PC, iPhone and iPad, including mail, messages, contacts, reminders and calendars, among others, and you

can opt into each thanks to a series of checkboxes. A quick click on the usage meter at the bottom of that screen lets you manage the content you're storing in the cloud. All in all, a quite painless process.

Messages

iChat, you've had a good run — well, a decent one, at least. But Apple's desktop messaging system was never quite so user-friendly as the one offered up in iOS. So, rather than trying to make iChat more like iMessage, Apple is simply swapping one out for the other. That's a theme you'll see here across these updates — where Apple found a shortcoming in OS X, it didn't rejigger the existing app or attempt to start from scratch; it simply ported functionality over from iOS.



As with iCloud, Apple does what it can to get you started with the feature as quickly as possible — the system will prompt you to sign up when opening Mail, or an email message in Safari. (Of course, folks who want to breeze through the setup can always click the word bubble icon in the dock to launch the app later on.) Upon opening Messages for the first time, you'll be greeted by a quick-and-dirty overview of the beta service, which lets you send "unlimited messages to iPhone, iPad, iPod touch or Mac, right from your Mac." In a nutshell, then, the app breaks down whatever divide previously separating the Mac from iOS, allowing you to jump into a conversation on any (Apple-made) device.

Using the service, you can send messages, documents, HD videos and photos (up to 100MB apiece) to one person or several, using phone numbers or email addresses as points of contact. Do keep in mind that just because Apple has put iChat to bed here doesn't mean that all of the service's functionality is gone — iMessage still incorporates chat services like AIM and GChat. Messages sent through the service are encrypted, and the app also uses a notification to let you know when messages have been delivered / read.


All in all, it's a cleanly designed and incredibly easy to use feature. The majority of the screen is devoted to the current conversation. In general, really, the layout should prove familiar to anyone who has used the mobile version of iMessage. Messages come through in the

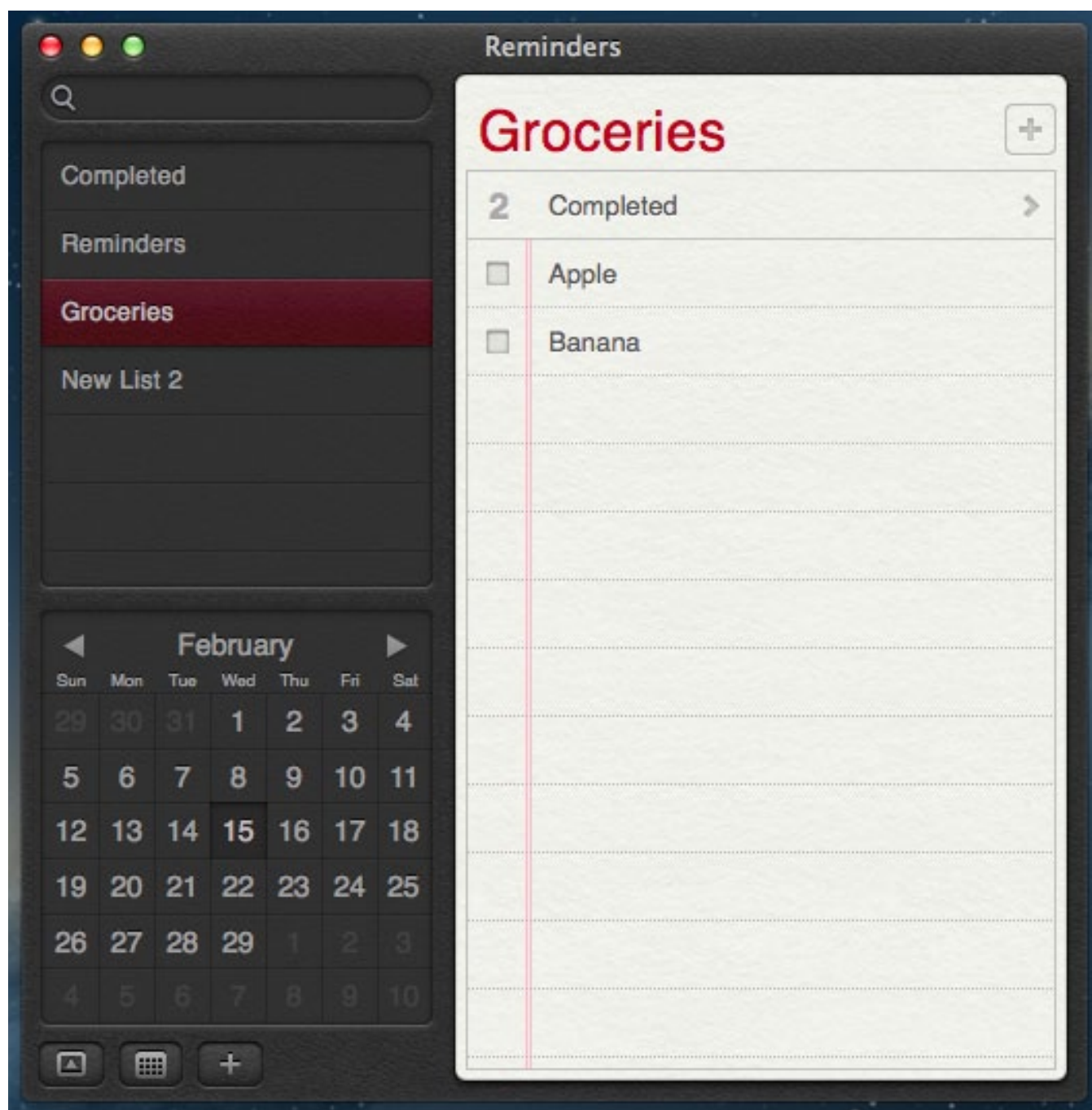
form of different colored word balloons. Your friends' avatars will appear here, with the word balloons aligned with their faces. As with the movie version, ellipses let you know when the person on the other end is typing. Images sent via the service will show up as previews. Clicking the camera icon along the top of the screen will turn the conversation into a FaceTime chat for when your carpal tunnel proves too intense.

Still, it's also obvious that Apple's tweaked the app to take advantage of the extra screen real estate you'll get on a Mac. All of your conversation live on the left side, with large icons for each person you're chatting with, along with their names and text previews. In the case of group conversations, you'll see multiple pictures laid over one another. Unread conversations are marked with a blue dot, located next to your buddy's avatar. At the top of the column is a search bar that lets you quickly find something buried in those threads — curse your incredible popularity.

Reminders

Here's another iOS feature ported over to the desktop. For those keen on making reminders — or simply not forgetting things — the app helps make and track to-do lists. As newcomers might expect based on the name alone, these lists are styled after pieces of binder paper. Whenever you complete a task, simply tick the box next to it and it'll disappear from the list. Clicking the "i" icon next to an entry lets you set a reminder date, shuffle the priority rat-





ing or transfer it to a different list altogether. Lastly, that small calendar icon lets you sort tasks by date.

With us so far? Good. It is indeed easy to use, though it's hardly revolutionary. It's certainly handy that the app can sync with things like Google and Yahoo Calendar, but the real key here, as with other new features we'll tell you about, is how nicely it pairs with iOS, syncing your reminders and lists across your various iDevices. It's easy to see this feature becoming a handy part of some people's daily routines, but Reminders also isn't likely to turn you into a list-making type if you're not already.

Notes

If you got excited by the prospect of Reminders, boy are you going to like Notes. Another juiced-up iOS feature, Notes is a simple way to, well, you know, make notes about stuff. Like its mobile counterpart, the OS X version is designed to look like a legal pad, complete with ripped edges. Apple takes advantage of the additional screen space by adding a search function up top, along with a side column listing all of your notes.

Double click a note, and it'll pop up in its own window, which will live on top of the desktop even after you close

Notifications might be our favorite addition in Mountain Lion.

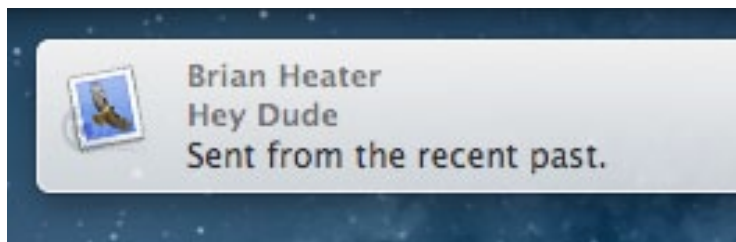
the Notes window. The OS X app also allows for richer features like images, links and additional fonts. Again, not the most titillating feature in the world, but the big selling point is the fact that your various jottings can be synced via iCloud. Again, not a bad thing at all.

Notification Center

At last, one of the more prominent features in Mountain Lion. It's a small aesthetic change at first glance, but it will

can also pull this off with a two-fingered swipe. Click on the menu icon, swipe in the other direction or tap anywhere on the desktop, and everything will shift back to normal.

If you've ever wondered what Apple was saving for the area just to the right of the main desktop, here's your answer — this is where your notifications live. That iOS 5 feature, which took a few cues from Android, lives here on the Mac. So, get used to pulling to the left, not



arguably go the furthest toward altering your workflow, if and when you first make that leap to 10.8. When you first fire up the operating system, you'll see a circle icon on the far right side of the top menu bar, where the Spotlight lives in Lion (that's since slid over to the left, ever so slightly). It's best described as a target with a black hole at its center. Get a message and the center of the target lights up blue, and an alert pops up in the new notification stream.

Click the icon once, and the desktop background will shift to the right (the dock on the bottom and the menu bar up top stay put). In keeping with Apple's previous attempts to make your trackpad more touchscreen-like, you



from the top. It's a change that makes sense given the Mac family's screen orientation; there's just more real horizontal screen real estate to make use of. Though the placement is different, the notifications sidebar is nearly identical to the iOS version, right down to the

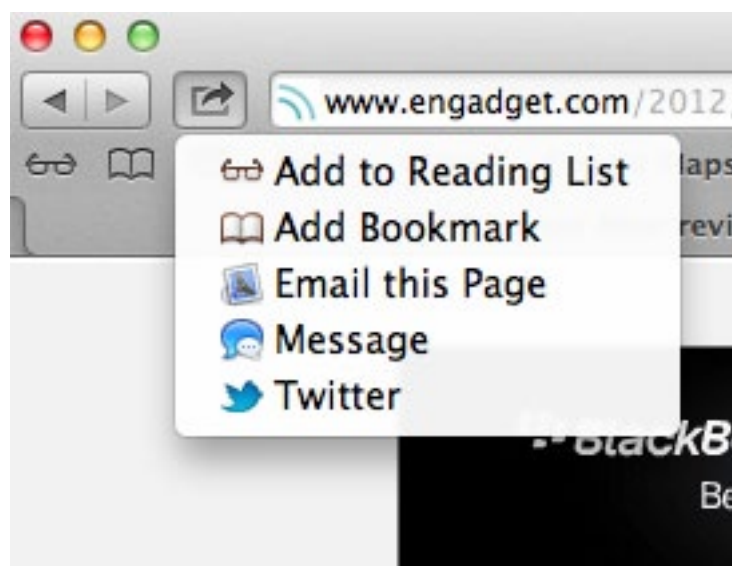
lightly crosshatched gray background.

Unlike Launchpad and other Lion features you could easily avoid in daily use, Notifications are tough to ignore. When installing 10.8, you'll be prompted to tie in all of your accounts, and once you do, messages become a part of your desktop, with a steady stream of banners lining the right side of the screen. Mail, messages, reminders and the like will pop up, stick around for five seconds and then migrate over to the notification center. Alerts like system upgrades and calendar events will stay put until you manually shoo them away.

Of course, all of this is quite customizable — you can toggle between banners and alerts, add and remove sounds or even take notifications out of the equation entirely if you're easily distracted. Still, we'd recommend sticking with them for a bit — Notifications might well be our favorite addition in Mountain Lion. Apple will also be opening the feature up to developers via an API, which will let them build notifications to go with their Mac apps.

Share Sheets

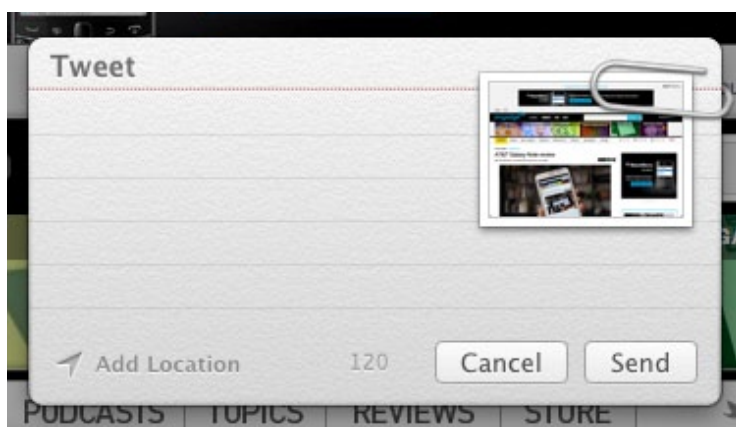
What's that? You say you want more mobile functionality built into Mountain Lion? Great news, everyone! Apple is baking its sharing button into a good deal of native Mac apps, allowing you to instantly share content from your desktop via email, message, AirDrop and third-party services like Twitter, Flickr and Vimeo. Frankly, it's a somewhat surprising addition. After all, while the functionality makes



sense on iOS, where it can be difficult to toggle between apps, you don't tend to hear all that many people complaining about the difficulty of switching between programs on PCs. In fact, that's one of the key things that to this day separates the Mac experience from its iPad counterpart.

That said, the addition of small arrow icons for sharing content from Safari, Preview, Photo Booth, QuickTime and the like (iPhoto is still in the coming soon stages) is a nice feature. Click one of those arrows and you'll see an animated window with a thumbnail for the shared item and a list of local computers with AirDrop enabled. Choosing, say, Message, will black out the rest of the app, save for a small pop-up window, where you'll enter the recipient's name and some text.

As Mountain Lion moves toward a wide release, Apple will likely partner with services beyond Twitter and the others we mentioned. We're really curious to see if the company opts to embrace services by Google (YouTube, please) and Microsoft — not that we're getting our hopes up.



Twitter

Yep, Twitter gets its own section. Why? Apple loves Twitter, that's why. Not enough for Tim Cook to get his own account or anything, but enough to sprinkle the microblogging service throughout the operating system. For starters, there's the aforementioned integration with Share Sheets (or Tweet Sheets, as Apple has cutely branded them), which let you tweet directly from various apps. Twitter usernames and profile pics have been added to Contacts cards, and tweets will soon be integrated into Mountain Lion's notification stream. The feature is set to be built into the Mac App Store as well, at some later date.

Game Center

Here's one that's not quite ready for prime time. Game Center will be coming soon to a Mountain Lion developer



preview near you, but as of this writing it's not quite there. Given the success of the app, which boasts some 100 million registered users, it's probably no shocker that Apple's imported the feature along with various other iOS offerings. As you'd expect, if you've used iOS recently, this brings social gaming to the desktop, letting you play against friends, keep track of high scores and carry on voice chats with opponents.

AirPlay Mirroring

Unfortunately, we had no luck getting this feature to work. Whether it was an issue with our network or just the fact that this was an early build, we can't



really say. This is all pretty straightforward, though — the AirPlay Mirroring you've come to know and love on your iPad is coming to your desktop. If you've got a Mac, high-def television and also an Apple TV, you're good to go. Set up those last two, and you'll see a triangle-in-a box icon pop up on the top toolbar, letting you stream 720p video to your HD display. Apple is also working to let users stream full-screen content directly from iTunes. Interestingly, due to rights concerns, some content will be

blackened out on your desktop while playing back on the HDTV.

Gatekeeper

And what of security? Apple's here to reassure us that just because OS X has a reputation for being relatively malware-free, that doesn't mean the company isn't actively working to gird the OS against various threats. In a sense, Gatekeeper is an attempt to extend the company's infamous (but secure) App Store vetting process to the entire web, creating a way to identify and block unsafe applications regardless of where they came from.

The company is basically offering registered developers, with Developer IDs, the opportunity to create a secure certificate. Those developers will use that certificate to digitally sign any applications they create. Apps that are thusly signed can be safely downloaded and installed to Mountain Lion but, if Apple discovers any cause for concern with apps created by said developer, all apps signed by that certificate can be blocked.

There's more flexibility here than in the App Store, thankfully. Users can opt into three security settings, with the strictest allowing only software from the Mac App Store to be installed. The next step down allows software to be installed from anywhere, but all software must be signed as described above. The final option is to open the gates and allow anything to be installed from anywhere.

Even if you use the second security option there is a manual override, which could be useful if you really want

to install that older version of TweetDeck you found online.

Chinese

Mountain Lion also brings a litany of improvements for Chinese speakers, including better word and phrase suggestions, autocorrect, enhanced handwriting recognition and the ability to type in English without changing keyboard settings. The popular Chinese



search engine Baidu will be built into Safari, and services like Sina Weibo, Youku and Tudou will fill out the Share Sheet options.

Outlook

It was with Lion that we really started to see a blurring of the lines between mobile and desktop, and in a lot of ways, Mountain Lion delivers on that promise. Really, it's not unlike what we're seeing in the still-evolving Windows 8 and, to a lesser extent, Ice Cream Sandwich, which is determined to create some unity between Android phones and tablets.


Of course, 10.8 is more than simply a

Mountain Lion feels like yet another step on a longer-term journey for Apple.

mobile operating system ported to the desktop — what we're seeing are ongoing revisions to a robust desktop OS. There's still plenty that OS X can do that the iPhone and iPad can only dream of. After all, features like Mission Control and Launch Pad are ultimately built on top of a rich desktop experience, and much like the Mac App Store, users can largely ignore them (though you'll be missing out if you do).

Like its predecessor, Mountain Lion feels transitional. It seems like yet another step on a longer-term journey for the company — a strategy Apple has hinted, at but never fully mapped out in public. For the most part, these moves are promising — given the number of gadgets we carry around at any one time, a push toward integrating the mobile and desktop bits can't be a bad thing. What's slightly troubling, however, is the company's apparent attempt to exert as tight a control on its desktop operating system as it currently wields over iOS. Look at Apple's fight against jail-breaking: the outfit will go to great lengths to maintain quality control. Apple is simply taking pains to block

bogus apps, but even that can be a slippery slope. In the company's defense, it is offering users the ability to opt out — a courtesy not offered in the iOS App Store. As long as Apple sticks to that kind of relative openness on the desktop, we should be in good shape.

As always, we're going to reserve final judgment until we can test a final version of the OS. For now, though, we like what we see. This may not be the jump to OS 11 we were expecting after Lion, but it certainly marks a promising step forward for the — and one that's arriving a mere year (give or take) after its predecessor. And as for price? Apple isn't talking, but it seems a safe bet that it'll run around the same price as Lion. 



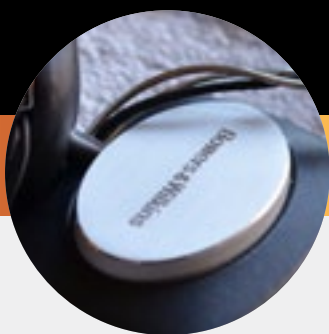
Brian's work has appeared in Spin, The Onion, Entertainment Weekly, The New York Press, PCMag, Laptop, and various other publications.



IN REAL LIFE

Welcome to IRL, an ongoing feature where we talk about the gadgets, apps and toys we're using in real life and take a second look at products that already got the formal review treatment.

1.



2.



3.



Bowers & Wilkins P5 Headphones, Speck SeeThru Satin and the Nokia N800

BY ENGADGET STAFF

Of this week's IRL contributors, two have already tried out that replacement for iChat. For the purposes of this column, though, all three are waxing on about something very old, at least by early adopter standards. For starters, James still gets the warm-and-fuzzies holding his Nokia N800 Internet Tablet, despite its crawling page-load times. Joe, our resident audio guru, explains why he tosses a reference to Bowers & Wilkins' P5 into almost every one of his headphone reviews. And the object of Mat's affection — a laptop skin — slipped under our radar when it came out over a year ago. So is James actu-

ally still using that N800? What's Joe's obsession with B&W? And why would anyone spend \$50 on a notebook prophylactic?

Bowers & Wilkins P5 Headphones

Time and time again, I find myself referencing Bowers & Wilkins P5 headphones in reviews. Strangely, though, I've never actually given my full opinion of these leather-clad cans. At \$300, they fall into the wallet-thinner category, and while some might balk at the thought of spending that much for iDevice-optimized 'phones, they've proven to be worth nearly every penny. They



just ooze class, thanks to the brushed metal accents — you could wear them with a suit and still look dapper, as far as I'm concerned. Furthermore, the included pouch brings the experience a measure of luxury usually reserved for fine jewelry.

I'm picky when it comes to fit, but B&W has struck the best balance of portability and comfort I've experienced yet. The sheepskin leather is incredibly smooth — not to mention, padded with memory foam. And unlike many headphones using the stuff, it actually comes close to that Tempur-Pedic sort of feel. Of course, it does help that these headphones are ridiculously flexible, and also lightweight, at just under seven ounces. Plus, whenever I need a break, the earcups can twist flat and rest on my collarbone. Notably, their closed-back design offers such good passive noise isolation that they've rivaled every active noise-canceling headset I've used. The audio is quite good for the size, and it's comfortably

voiced for long listening — a thick, dark sound with relaxed highs and an acceptably sized soundstage. That's not to say they're bass-heavy; more that the sound is exceptionally warm. Of course, if you prefer gobs of treble above the mix, looks elsewhere.

Naturally, I have some nitpicks. For one, the included cables need improving. You might think it's their thinness (I'm a fan, as there's nary a trace of cable noise), but it's actually the straight-angle jacks — a nightmare when your PMP is in your pocket. I managed to snap the jacks on both cables through routine snags, so it's good that the cables detach easily from under the left earpad (the pads attach magnetically). A switch to a right-angle plug would greatly improve their durability. Thankfully, B&W covered my breaks under warranty as a one-time only deal, so I can at least attest to a pleasant customer service experience. The other fault lies in the iPhone remote/mic. Although it feels great for con-



trolling playlists, the onboard microphone picks up loads of ambient noise — so much so that I generally have to pull the mic up to my mouth. Interestingly, the company's C5 in-ears use an improved mic that better focuses on vocals, so hopefully it'll eventually make its way to the P5. These complaints aside, the P5 headphones have been my daily drivers for over nine months, and I'd recommend them to anyone looking for an awesome set of portable cans. That said, we'll see how I feel once Sennheiser releases its HD-25 based Amperior in the coming months.

— *Joe Pollicino*

Speck SeeThru Satin Case for MacBook Air

MacBooks play a substantial role in our live coverage, mostly thanks to the Mac-only dongle we use for on-the-fly video encoding. So, not long after, I took the plunge for the job and bought an Air. That initial cash injection cranked up the paranoia of damaging what's possibly my most expensive purchase yet.

Out of all the carry cases and laptop skins, there were two reasons why I

decided to stump up a little extra cash for one of Speck's wafer-thin (and presumably high-margin) MacBook cases. Sure, there were other shells, but it's this one's glossy finish — it was love at first touch. Factor in a heady dose of longing for the (unfortunately discontinued) black MacBooks, and you can see how I ended up with the black-finished Speck cover for my 13-inch laptop.

The casing comes in two parts, with a single flat half for the screen's backing and a slightly deeper shell to cover the base and sides of the device, leaving ports accessible and offering up four slightly more tactile feet to stabilize your MacBook on desks and the like. That's not to say it's completely perfect. Minor whinges: the shell protects your Mac, but scratches appear white on the matte surface — and these are particularly pronounced on my black case. Also, the nubs that stretch out over the keyboard half still have sharp burrs on them, making typing mildly hazardous for work-shy, soft-handed types like myself. Still, a confluence of four Speck-shelled MacBooks in Engadget's CES trailer alone is a sign that perhaps Speck is doing something right after all.

— *Mat Smith*



Nokia N800

Way back in 2007 I made a purchase that changed my life: I bought a Nokia N800 Internet Tablet. It's probably the first major tech purchase I made where I had absolutely no need for it, but justified it to myself all the same. In essence, I confirmed myself as a gadget lover — heart won over head. That's not to say the N800 itself was useless; it just did lots of things I didn't know I needed. There was just something about the idea of the device that sung out to my inner geek as, like many Nokia devices at the time, it was extravagant and experimental in equally seductive measures.

Back then I was working as a systems administrator for one of the UK mobile networks, which meant lots of Unix, SSH and other such network shenanigans, and this is loosely where the N800 was meant to fit into my life. I loathed mobile internet back then, navigating via a tiny Symbian screen was no fun at all. With the N800 I was liberated from this tyranny and had a full 800 x 480, 4.13 inches to play with. Also, the Tablet

OS was Linux-based, and supported by an active developer community, so there was a good deal of clever (if somewhat basic) apps to play with.

In practice, the internet experience via the N800 had its pitfalls. Getting WiFi on the go was a struggle. Even if you did find an open hotspot, connecting was hit-and-miss, and pages seemed to render endlessly, making clicking and pointing (with the already average resistive screen) a chore. Likewise, I never understood why Nokia didn't endow its internet tablets with 3G — this would have majorly legitimized the device as a true portable internet gadget. In fact, I spent half the time explaining to curious friends that although this was a Nokia, it wasn't actually a phone of any sort. No doubt, the folks at Espoo had good reason for this omission, but as the iPhone would prove in the same year, it might have been a costly one. Despite all of this, as I took the N800 out of its hiding-hole for this column, I still got a solid twitch of inexplicable excitement.

— James Trew





AS HE PREPARES FOR HIS SXSW SHOWCASE, THE FATHER OF NERDCORE, MC FRONTALOT, TAKES SOME TIME OUT TO TALK ABOUT THE MERITS OF PIRACY AND SIRI'S 'MORAL POSTURING.'

MC FRONTALOT

Q&A

What gadget do you depend on most? My phone. It is currently an HTC Desire Z, branded by t-mobile as the G2. It is so thoroughly useful that I've started leaving my laptop at home for short out-of-town trips, which would have been unthinkable two years ago. I realize that referring to a several-days-long separation from a laptop as "unthinkable" marks me as a first-world jackass of high caliber. But screen and keyboard are how I deal with my life and to pretend otherwise would create a stain on my character. A close second is my headlamp, which attaches to my forehead via elastic strap.

Which do you look back upon most fondly? There was an orange plastic fold-open dual-screen LCD *Donkey Kong* game that I was very proud of around third grade, probably 1983. I didn't know anyone else who had anything so cool. I mean, there were some Atari 800 owners, but you couldn't smuggle one of those into class in your pocket. I was overjoyed to find the thing built into a web page. Thinking about it in detail has stirred the memory of these two Coleco miniature arcade cabinets, which were even more dear to me: *Pac-Man* and *Frogger*.

They had tiny joysticks, colorful vacuum fluorescent displays, and insanely loud shitty chip music. A little too big and way too precious to bring to school. But I played the hell out of them when I got home.

Which company does the most to push the industry? I'm going to say the Swedish Pirate Party, not for what they've done but because they represent filesharing in general. The actual companies behind filesharing become casualties of the content cabals, of course. But Napster and eMule and Limewire created the market for iPods... people weren't buying those things because they were thrilled to repurchase their CD collections in a worse-sounding format. They wanted pocket hardware that fit into the amazing new world of endless free shit. And Rapidshare, Megashare, Bittorrent... these services and platforms are the ones forcing the video content barons to get in bed with the flat-rate-streaming and VOD services in a timely manner and at a reasonable price point. Without piracy I think we'd be looking now at ever more refined iterations of those DVDs that decompose after being exposed to air. That's the kind

Spell checking. Good spelling is the foundation of a civil society and I am glad to live in an age when small robots have taken this responsibility out of our hands.

of innovation the content companies work on, absent the populist pressure of the shady internet folks.

What is your operating system of choice? Windows 7, believe it or not. Macs never seem to have enough buttons, settings, or available software to make me happy. And I am not clever enough to live in Linux full time.

What are your favorite gadget names? I kind of like how Japanese gadgets get English names that sound like male robots. Walkman. Discman. Gameboy. It's like you've got a Li'l Buddy to entertain you and do your bidding.

What are your least favorite? Maybe the As-Seen-On-TV Hat. It is a hat that holds your phone up in front of your eyeballs. Embarrassingly, I always kind of wish I had one of these when my arm gets tired while I'm watching Netflix on the bus. But the only thing worse than being seen wearing one would be admitting the name of what you were wearing.

Which app do you depend on most? On desktop: Reaper, by a company called Cockos. It is my recording and mixing environment. I find it more speedy, stable, accurate, and versatile than any other DAW, and I'd be lost without it. On the phone: it is a toss-up between the stock Android Gmail client and this program that

makes fart noises when you sit on it.

What traits do you most deplore in a smartphone? Facilitation of fart noises. The moral posturing of certain voice assistants who won't tell you where Planned Parenthood is. The keyboardlessness of most models.

Which do you most admire?

ANSWER

What is your idea of the perfect device? I suppose it would be about the size of a credit card but it would reveal the future onscreen and function occasionally as an asthma inhaler. Also, it ought to produce sandwiches.

What is your earliest gadget memory? My grandfather spent a lot of time at Radio Shack. He had a few things that I loved: a pair of professional-looking long-range walkie-talkies, and a small electric dictionary that showed two or three lines of text on an LCD screen and ran on AA batteries. I thought it was amazing that a whole book fit in there.

What technological advancements do you most admire? Antibiotics, birth control, microchips, diet soda.

Which do you most despise? Black-

box voting, 3D televisions, corn syrup.

What fault are you most tolerant of in a gadget? Shitty little loudspeakers.

Which are you most intolerant of? The eager sacrifice of battery life for bells and whistles.


When has your smartphone been of the most help? Restructuring my travel plans when I'd otherwise be lost or late. Finding vital music gear retailers in foreign lands. Preserving the rest of the world from what might otherwise be a tragically slow delivery of cute twitter pictures of my dog.

What device do you covet most? A smartphone from twenty years from now.

If you could change one thing about your phone what would it be? Quality of the microphone.

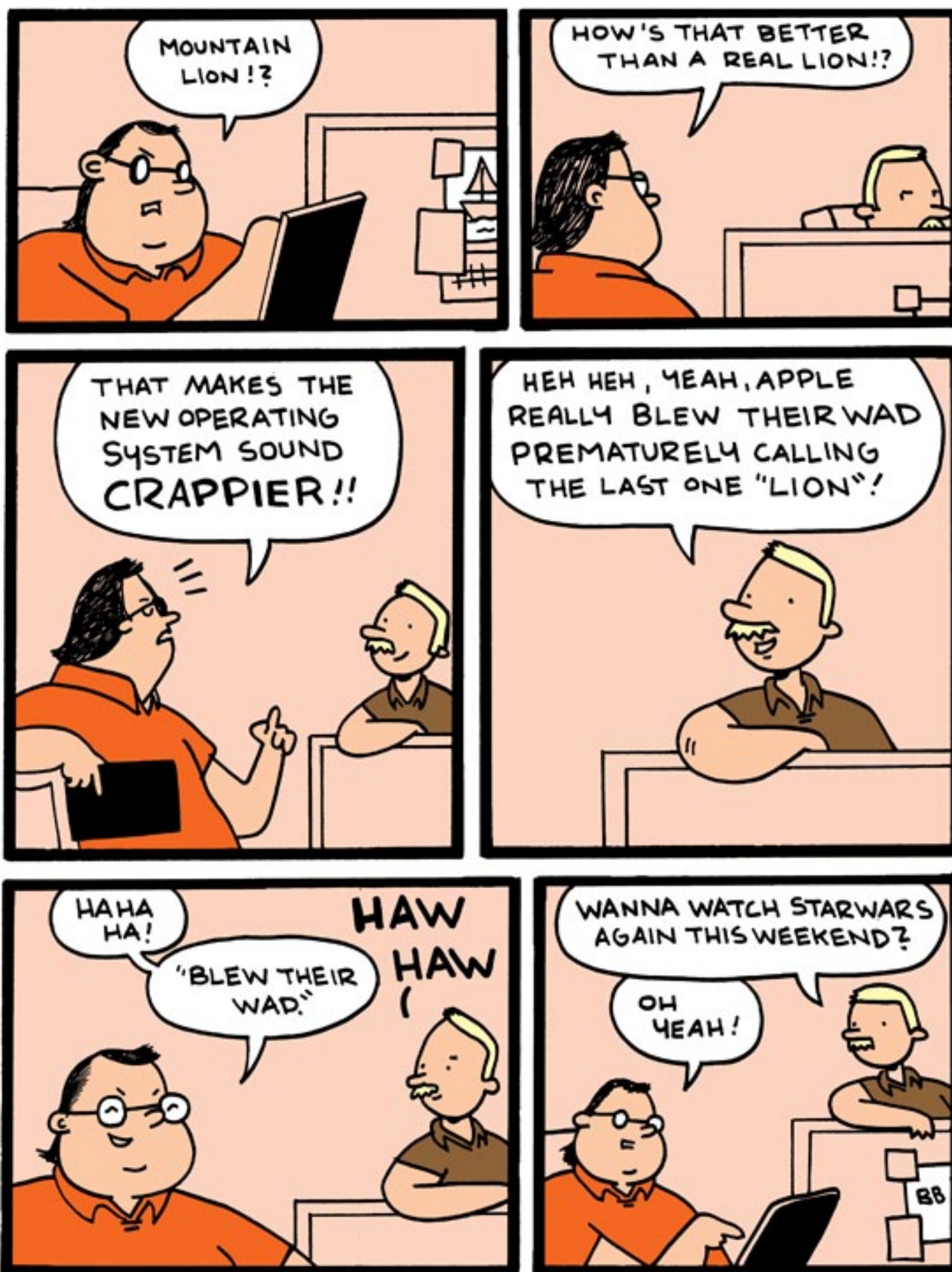
What does being connected mean to you? It means I never have to keep track of things or know things any more. I can devote those brain cells to understanding things instead.

When are you least likely to reply to an email? When I have literally anything else to do.

When did you last disconnect? Last night and this morning, for about seven hours, while I was asleep. 



OS X Mountain Lion



The Last Word - Box Brown

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IRL: Sony NEX-C3, Garmin Forerunner 110 and the Elgato Turbo.264 HD

3 HOURS AGO
iPhone 5 to have 21Mbps HSPA+ data? China Unicom says so



30 MINS AGO

Dell confirms XPS 14z will go on sale in the US in the 'coming weeks'

Remember that XPS 14z Dell teased at IFA? Yeah, well, it's arriving soon. As in, "the coming weeks" soon. The company just confirmed it's on the cusp of shipping here in the states, and while the outfit stopped short of giving a starting price, it's good and ready to talk specs. As we reported last month, it has the same industri...

By Dana Wollman September 29, 2011 12:35PM



54 MINS AGO

iPhone 5 cases and realistic unibody dummy show off incredible slimness

While we're only five days away from finding out the true appearance of the next-generation iPhone, our good friends over at BENM.AT went ahead and crafted their very own unibody dummy using CAD drawings, CNC tools and a block of aluminum -- seriously, that's how they roll! Granted, this work's only based on...

By Richard Lai September 29, 2011 12:13PM



1 HOUR AGO

Kobo's Vox Android tablet appears online briefly, gets Canadian release date and pricing

A day after another little-known e-reader manufacturer announced a tablet, a new Android slate from Kobo made a brief online appearance on Future Shop's site, only to be quickly taken down. According to the Canadian retailer, the FCC-approved tablet will offer up a 7-inch display with a 1024 x 600 resolution, WiF...

By Brian Heater September 29, 2011 11:53AM



Iceland gets a data center to call its own, still believes in fairies

You say Iceland, we immediately think Eyjafjallajökull -- and no, we haven't had a narcoleptic collapse upon these very keys. It's been over a year since that volcano swept the headlines and interrupted air travel, providing outsiders with a skewed

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